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THE ANNUAL
OF THE
BRITISH SCHOOL AT ATHENS

No. 55

1960

THE BRITISH SCHOOL AT ATHENS

31-34 GORDON SQUARE, LONDON, W.C. 1

Published by the Managing Committee

PRICE: THREE GUINEAS NET

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CORRIGENDA

Page x, line 15. *For 'GRAVE' read 'WELL'.*

„ 168, „ 3. *For 'Orange-black' read 'Orange-buff'.*

„ 232. Fig. 8 should be inverted.

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FOUR WHITE LEKYTHOI IN THE NATIONAL MUSEUM OF ATHENS

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A GEOMETRIC GRAVE AT KNOSSOS

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THE TEMPLE OF POSEIDON ON CAPE SUNIUM: SOME FURTHER QUESTIONS

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POTTERY FROM KARPHI

(PLATES I-14)

THIS article should have been published in *BSA* xxxviii with the rest of the Karphi material. That it was not was due to the fact that in 1939 the pottery was insufficiently mended for drawing and photography. Most of the text was written by the beginning of 1940 and approved by John Pendlebury before his death. I can only apologize for subsequent delays and admit that I have forgotten much which might have been relevant.¹

METHODS

The pottery from each room and each strosis was carefully collected and labelled.² During the first two seasons it was then brought to Tzermiadho for study, but in 1939 arrangements were made for dealing with it on the site, which greatly simplified the work.

At first sherds were washed by women from the village, but the difficulties of washing were so great that it was soon decided that all those that were painted, or probably painted, would have to be washed by one of ourselves if their patterns were to be preserved. Even so there were many instances where no treatment which we could devise would remove the mud without also removing the colour, if not the entire surface. Eventually only such coarse sherds as seemed to be worth making up, or to represent new types, were washed at all, since brushing in plain water, which was all that these would stand, had so little effect that sorting was just as easy without it. Whole or restorable vessels were either, in the case of duplicate coarse examples, made up at Tzermiadho and left in the school to form the nucleus of a local collection,³ or, in the case of better specimens, taken to Herakleion. Many sherds showing variations of fabric, form or design were also brought away for further study. The provenance of every piece was written on it in ink, but there are by now instances in which the numbers have either worn off or been obscured by plaster.⁴ Such sherds as were considered valueless were noted and thrown away in a heap on the site. The noting became easier as soon as a corpus of shapes could be compiled, for it was then only a question of trying to determine the number of vessels of known types represented in each room and of keeping a watch for new ones.⁵ Unfortunately this could not be done until the finds from 1938 had been mended sufficiently to be drawn, and in consequence the proportion of types in each class is reckoned chiefly from those which came to light in 1939. There was, however, so little difference between the general contents of most areas that not much information can have been lost, particularly since at first far more specimen sherds were kept than was necessary.

The discussion which follows concerns the pottery of the Intermediate Period⁶ from both the

¹ Dr. N. Platon, Mr. S. Alexiou, and the staff of the Herakleion museum have, as always, been most helpful. Photographs are the work of Messrs. J. Pendlebury, J. Carter, N. Coldstream, and E. Androulakis. I am also much indebted to Mr. M. S. F. Hood for help and encouragement.

² It may be said at once that, even when there was enough depth of earth to take levels separately, no distinction between the pottery of upper and lower could ever be made. See *BSA* xxxviii. 78, 12 and 80, 23.

³ These are now in the museum at Neapolis.

⁴ In the following pages plain numbers denote rooms or streets in Karphi city, M and a number a tomb at Ta Mnemata, and A and a number a tomb at Astividhero. On the Figs. provenances are given according to type sequence, not according to position on the page.

⁵ In many cases, although types could be noted, sherds were too fragmentary for numbers to be accurately determined.

⁶ *Op. cit.* 134. Pottery of any later date is too scanty to merit a special section. The only whole vase is the Geometric one from M 1 (PLATE 11*b* top right).

city and the tombs, since there was no material difference between the two. Actual tomb groups are noted in *BSA* xxxviii, section iv.

FABRICS

The clay appears to be local, and both coarse and fine fabrics are exactly paralleled from other sites in the neighbourhood. At Trapeza the difference between native products and imports was clearly marked, the clay of the former being paler than that of East Crete and softer than that of Knossos.⁷ On the Kastellos a few sherds occurred resembling the blue ware described below.⁸ When Karphi was being excavated potter's clay still existed on the Lasithi plateau, at Aghios Georgios, and Kato Metokhi.

1. *Coarse*

Coarse ware may be divided into three classes according to colour. The most common is red. This is taken to include everything from black to a light brick colour, since minor variations seem to depend only on irregularities of firing, and the same vessel is often much darker in some places than in others. There are always particles of stone in the clay, but the size and quantity of these vary, and it is sometimes difficult to draw a line between coarse ware and fine. The surface is generally left plain, but occasionally smoothed over by means of an extra wetting or, more rarely, covered with a thick white wash or slip. If plain, there may be white painted designs, and, if slipped, dark ones, but neither has as a rule survived.

Next in frequency comes a harsh buff ware. The particles of stone are more apparent than in the red. They vary in size but even when very small give the clay a speckled appearance quite distinct from that of typical fine ware. There is no slip, but the surface may be covered, wholly or in part, by a dark wash, or there may be bold designs in black or reddish paint.

Finally there are a few vessels in a greyish-blue ware which, like the fine blue ware, is probably due to some change in the firing, since the texture of the clay is exactly similar to that of the buff.

2. *Fine*

Fine ware has the same distinctions of colour as coarse, but more variations of finish. The red ranges from a deep brown to almost orange. It is always soft but may be left plain, covered with a thin self-coloured slip or with a thick white wash or slip bearing further dark, painted decorations. In all cases, however, most of the surface has either worn or flaked away.

Buff ware, the most usual fine fabric, is either soft and muddy or else fairly hard and varying in colour from pink to greenish-white. In both cases there is usually a thin slip, but in the former this adheres to the surrounding mud more firmly than to the pot and only in the latter can the surface and its decoration ever be discerned. Designs are either in dark or in an attractive red paint.⁹ Where vessels had been buried in the clay of floors or roofs their paint had always suffered, and when they had come into contact with fire it had often burnt off completely. It seems probable, however, that everything made in fine buff ware was originally decorated.

The blue ware may have been produced intentionally or may have been due to faulty firing. The distortion of shape which is apparent in the group of vases in this ware from the Temple suggests the latter explanation, although why such ungainly objects should have been brought there remains a mystery (PLATE 4*b*, top row). Examples from elsewhere seem to be perfect, but there are hardly enough of these on which to base an argument. In texture the clay resembles

⁷ *BSA* xxxvi: 72.

⁸ *BSA* xxxviii: 27 (Cup 5). The colour is less brilliant

than at Karphi.

⁹ *Op. cit.* pl. xxiv: 6.

that of the harder buff ware but is more harsh to the touch. It varies from blue-grey to almost purple,¹⁰ and may have a pinkish slip or else a white coating resembling that of the red ware and similarly decorated.

Almost any shape may occur in almost any ware, the only rule being that the larger the vessel the coarser the fabric.

SHAPES

All vessels except the roughest (in particular Dishes 6) are wheel-made. Those that are very large seem to have been built up in strips (see *Pithoi*). Others may have necks, handles, bases, &c., added separately (see *Stirrup-jars*, *Jugs*, *Kraters*, and *Kylikes*). Shapes have been arbitrarily classified, but the types overlap considerably and in detail are often alike. For instance, jars and tripods are indistinguishable unless their bases are preserved, *kalathoi* become lamps by the addition of a handle which pushes in the side, one-handed jugs, two-handed jugs, side-spouted jugs, and stirrup-jars may all have the same outline as far up as the shoulder, the bases of cups and bowls resemble one another as do those of pyxides and tankards, and carinated pyxides are paralleled by carinated stirrup-jars, although both are rare. The corpus was made up for use during excavation, and it has been thought best to keep to the order originally evolved. For this reason type numbers are mere labels and have no other significance.

1. *Pithoi* (PLATE 1*a*, *b*, FIG. 1)

Pithoi must have been used, as at the present day, as store-jars, water-butts, and chimneys.¹¹ The example from A 4¹² suggests that interments sometimes took place in them but that this did not necessitate the creation of a special funerary type. It must, however, be remembered that larnax sherds, too fragmentary to be typed, occurred in M 1 and that a few others were found in the city. *Pithoi* were represented everywhere except 32, 38, 50, 70, 126, and 140, most of which were roads. Some rooms contained the remains of eight or more (22, 69, 80, 121, and 149) but generally much broken and scattered.¹³

They are always in coarse clay, the majority being red but quite a number buff. They seem to have been made up in strips. These have sometimes split apart, showing how one edge was finished with a groove and the other with a ridge, to facilitate attachment. The ridge may show faint bosses to make an even firmer join (PLATE 1*b*, bottom left). A band, generally with some form of moulded or incised decoration, was applied over the join to conceal and strengthen it. The rim, if thick (types 1, 17, and 23), was added in the same way.

The height varies from about 0.75 to 1.25 metres and the general shape is tall for its width. As a rule there is no very pronounced curve in the sides, but sometimes there is a definite shoulder. Handles, which are usually vertical, may be attached at the rim, on the shoulder or below the widest part of the body. The most common form of rim is the amorphous thickening shown in type 8. Next in frequency come types 1, 2, 3, 5, and 14. Types 4, 11, 16, 19, and 20 are rare.

Decorations, which are either moulded or incised, occur on the bands, referred to above, which run horizontally round the body where joins were made during manufacture. They are also found in festoons, sometimes degenerating into diagonal strips, between these bands. Typical patterns are shown in PLATE 12*a*, top two rows. One *pithos* frequently has two or more of these patterns. The pinched-up rope, for example, is common round the neck with herringbone incisions below, or the latter may alternate with vertical slashes, or a narrow pinched-up

¹⁰ Op. cit. pl. xxiv. 5.

¹¹ Op. cit. 63 and 67.

¹² Ibid. 109.

¹³ A few possibly restorable specimens are still in boxes in the Herakleion museum.

festoon may occur between bands with circular incisions or rosettes. Occasionally the handles are also incised, but more often they are plain or, at the most, have circular impressions at their point of attachment such as are characteristic of all handles in coarse ware (see Pithoid Jars, and Tripods).



FIG. 1. PITHOID. From 69 (1-9), 80 (10-13), 82, 82, 91, 96, 96, 97, 97, 79, 122, 108. SCALE 1:4

Jars, and Tripods). These were probably made originally by mistake, as the handles were applied, and later repeated by way of decoration. Rims are generally left plain, but type 19 is found with a herring-bone pattern on the outer edge.

2. *Pithoid Jars* (PLATE 1c, FIG. 2)

These vessels must have been used for temporary storage, much as is the *kouroupi* of today. Fragments from two or three of them were found in most rooms and sometimes at least twice the average number were represented (26, 102, 147, and 149). As with pithoi, however, it was seldom that many sherds from one specimen could be collected.

They are always in coarse ware, but a higher proportion of them than of pithoi are buff, and there are several specimens in greyish-blue. They may occasionally have been built up in strips, but in general were made in one, and indeed their height, which cannot often have exceeded 50 cm., is not sufficient to have made any other procedure necessary.

The most common rim is that of type 3, but all are rather similar, with a rectangular section and some sort of moulding a short way down the side. Vertical handles are rare. Horizontal handles are set on, with an upward tilt, either at the level of the moulding (type 1) or imme-

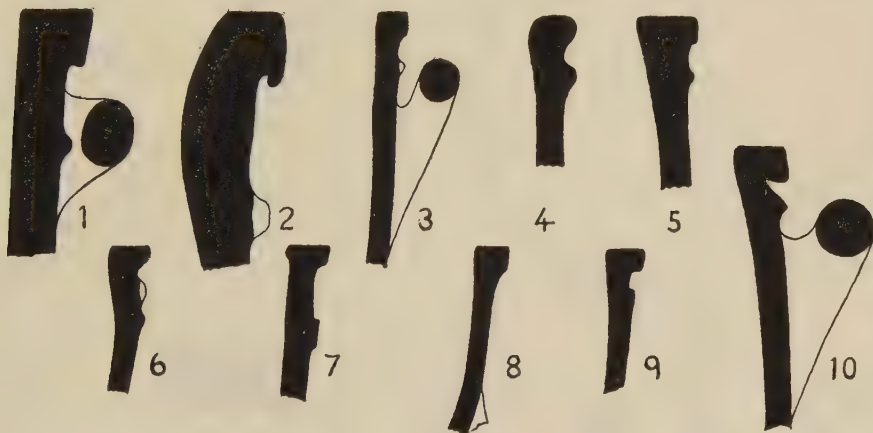


FIG. 2. PITHOID JARS. From 29, 55, 26, 24, 25, 8, 21, 30, 31, 2. SCALE 1:4

diately below it (type 3). They nearly always have circular impressions at either end similar to those already noted on pithos handles.

Apart from these impressions and the moulding below the rim, which is sometimes incised with the simpler designs used on pithoi, these jars are generally undecorated, but there are a few examples which show traces of a white wash or slip on which dark linear patterns are painted. This finish may have been more frequent than appears, since, even when it can still be discerned, it is always much worn.

3. *Jars* (PLATE 1d, e, FIG. 3)

Jars are taken to include all vessels with more or less in-curving rims which are too small to be termed pithoi, but which seem to have been used for storage rather than for pouring. They were naturally found everywhere in large quantities.

They are generally in coarse red ware, but also occur in buff, and in this case the clay has often been fairly well sifted. They do not appear ever to have been in blue or really fine buff ware. Their handles are put on separately and their necks are sometimes strengthened by a slight ridge where they join the shoulder (types 4 and 6); otherwise they present no peculiarities of manufacture.

The general shape is that shown in type 1, with upstanding neck, globular body, and plain flat base, but the rim is occasionally angular (type 9), and the base may be furnished with an incised band (type 8). Vertical handles starting from the rim (types 3 and 4) are rather more common than horizontal ones on the shoulder (types 1, 6, and 10), but both are more frequent than vertical handles at the shoulder (types 2 and 5). The example drawn of type 2 is the only one which certainly had three handles, and its slightly concave base is also unusual. The

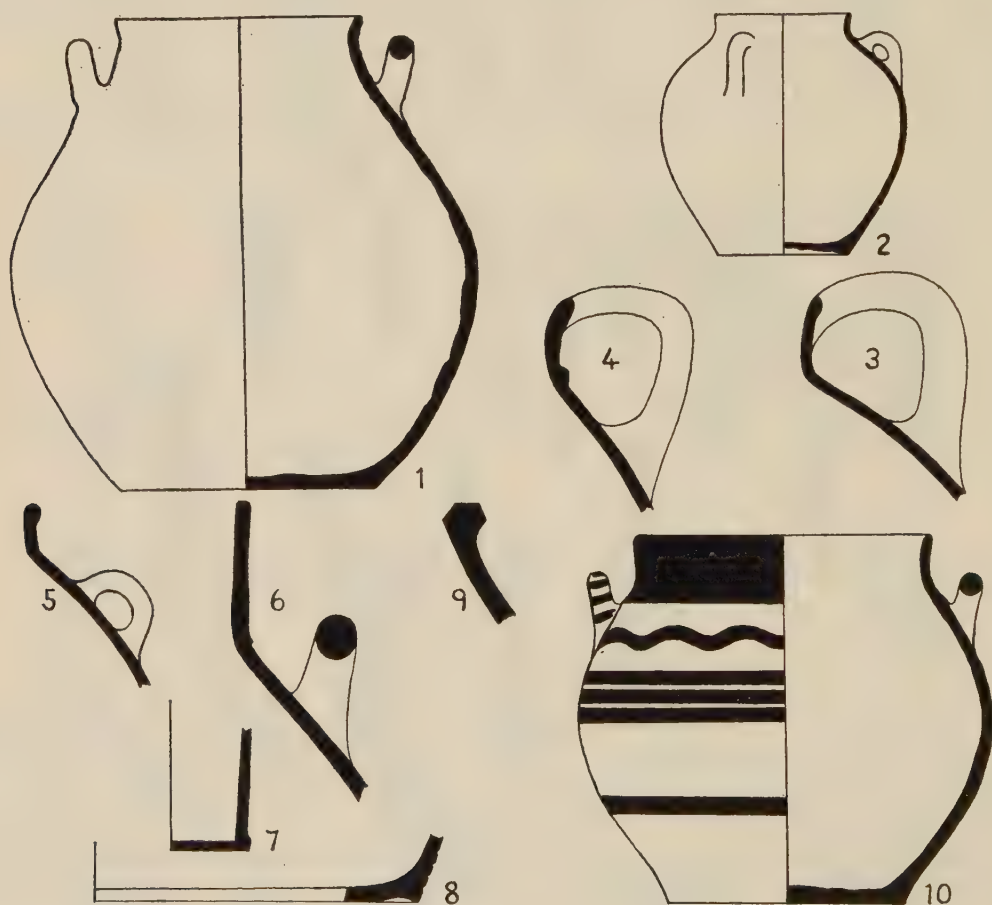


FIG. 3. JARS. From 23, 1, 29, 22, 2, 9, 47, 74, 13, 116. SCALE 1: 4

characteristic circular impressions (see Pithoi) may be found on any handle, whatever its angle or position, but they occur most regularly on those which are set horizontally. The complete shape represented by bases of type 7 was never recovered. A number of such bases, in coarse red ware, were noted, and since they seem to be too small in diameter for pyxides they have been included in the present section. A few pierced sherds from strainers were also found, which should probably be attributed to jars (PLATE 12*a*, third row).

Jars in red ware seem not to have been painted. Those in buff usually have some simple decoration similar to that shown on type 10.

4. *Tripods* (PLATE 2a-e, 4d, FIG. 4)

Tripods overlap in shape, and presumably in use, with jars and dishes, but they occurred in such quantity that it has been thought best to treat them as a separate class. Unevenness of the floors may explain their popularity, since they must have stood more firmly than flat-based vessels. They may have been used for cooking, although on the remaining examples there is no noticeable blackening of legs or bases.



FIG. 4. TRIPODS. From 14, 1, 16, 31, 150. SCALE 1:4

Like jars they are most often in coarse red ware, but also occur in coarse buff. A few, all too fragmentary to be typed, were found in fine ware, either red or buff, but none appears to be blue. The legs are always added separately, the surface of the base generally being scored across to give a rough surface to which they may adhere.

Types 1-3 occur with about the same frequency, and are not easily distinguishable from sherds alone. The example drawn of type 2 has apparently only one handle, but similar vessels were as a rule found with two. It may have had a lip spout (PLATE 4d). Type 4, which is really a tripod dish, is also fairly common, and some sherds belonging to it may have been counted as dishes (Dishes 2 and 3). Like these it often has a horizontal handle. Type 5 seems to be derived from a metal prototype and it must be remembered that a bronze tripod leg was discovered in

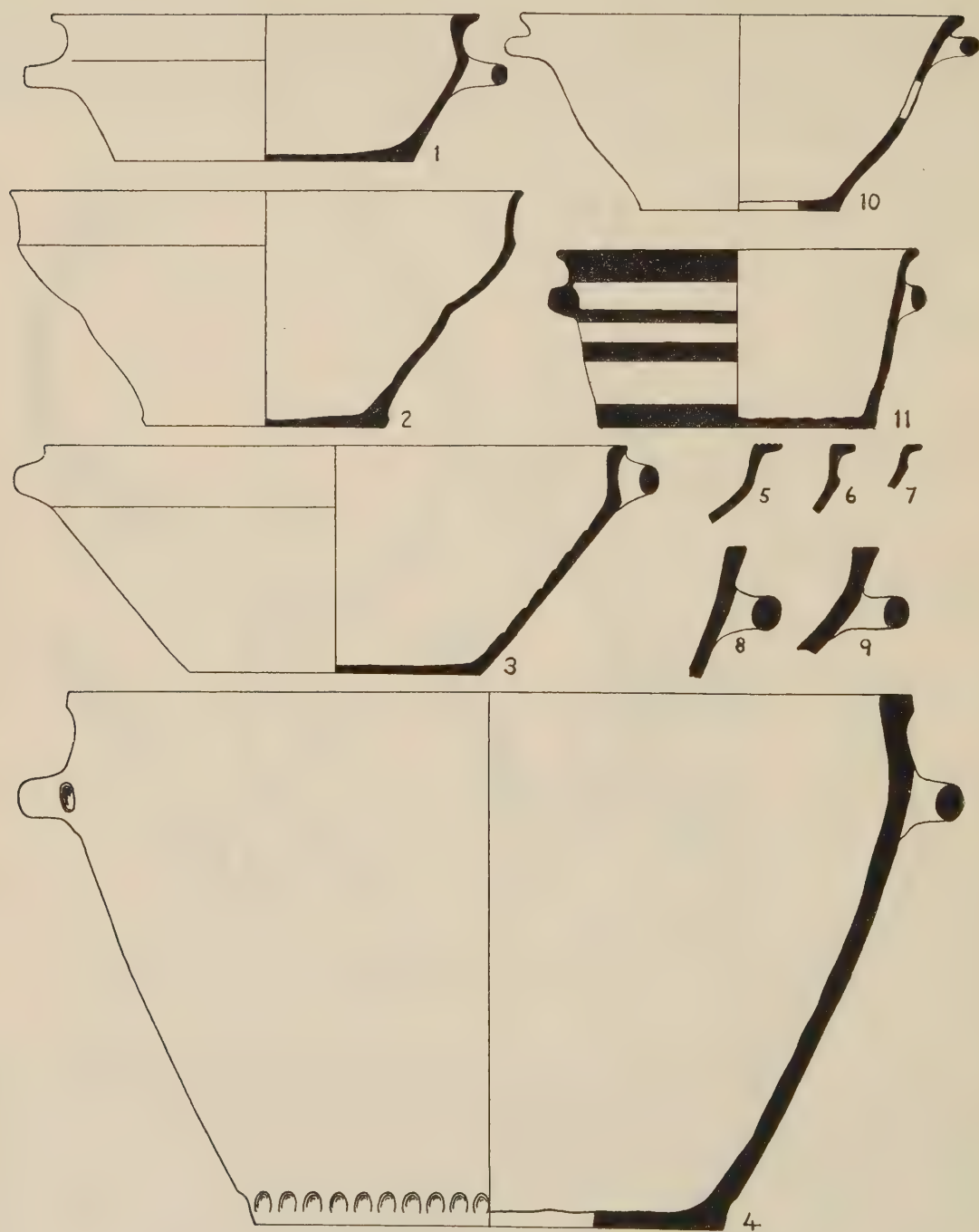


FIG. 5. BASINS. From 2, 88, 1, 150, 39, 94, 36, 26, 44, 121, 150. SCALE 1: 4

137.¹⁴ Type 6 has short legs, a wide base, and generally three handles on the shoulder.¹⁵ Type 7 (PLATE 4*d*) is represented by one specimen only. It may be compared with E.M. and M.M. candlesticks¹⁶ and with M.M. incense burners,¹⁷ but its use is quite uncertain.

Ordinary tripod jars in red ware are undecorated except for the usual impressions on handles, and similar ones, often combined with a variety of cuts and slashes, on legs¹⁸ (PLATE 12*b*, middle row). The most common leg decoration is a single circular dint at the top, and it is probable, as has been suggested with regard to handles, that this was originally made during the process of attachment and then purposely repeated. Eventually it sometimes develops into two dints, or 'eyes', with slashes below, reminiscent of the snout of an animal and probably intended to be so.¹⁹ Painted designs are seemingly confined to large tripods in light coloured ware, the finest example being of type 6 from 43 (PLATE 2*c*).

5. *Basins* (PLATE 3, FIG. 5)

Sherds from basins were noted from most rooms, although they were not so frequent as the classes hitherto mentioned. They are difficult to distinguish on the one hand from pithoid jars and on the other from dishes, but are roughly taken to include all open vessels, except kalathoi, whose height is between one-third and two-thirds of their diameter. They vary greatly in size and were probably used for many different purposes.

They occur in every fabric except blue, but are most often found in fairly coarse buff. There is nothing to note about their manufacture.

Their rims resemble those of pithoid jars. The most common is that of type 7, but types 1 and 3-6, which all project to some extent outwards, are also frequent. Of the plainer rims, which generally occur in red ware, type 3 is more usual than types 8-11. There is often a slight ridge at the point where the angle of the side alters (types 1-3 and 5-6), and horizontal handles may be set on either above or below this.

In red ware decoration is limited to incisions on the flat upper surface of rims (type 5) and impressions on handles and round bases (type 4). No white-painted examples came to light. In the more usual buff ware there are frequently, if not always, lines of dark paint outlining the rims and ridges, and sometimes concentric, but not compass-drawn, circles inside the bases (particularly on types 1 and 11). If more complicated patterns than this existed, they have not survived.

6. *Dishes* (PLATES 2*f, g, 3c, 4d*, FIG. 6)

This class includes all vessels whose height is less than one-third of their diameter, but although those of types 1-5, 7, and 8 were probably used in the ordinary way as containers and may properly be described as dishes, those of type 6 seem to have served some quite different purpose, possibly as hearths, baking pans, or spit-stands. Every room, with the exception of 22, which seems to have been used purely for storage,²⁰ contained the remains of these, generally to the number of four or five but in the case of 147 to that of eight or more and in that of 149 to as many as twelve. Fragments from two were found inside the oven in 73, and many occurred in

¹⁴ BSA xxxviii. 117. Most unfortunately I cannot now find any sherds from this type, except the square leg shown in PLATE 12*b*, and it was never drawn. It was noted in three rooms only (43, 84, and 147). I believe its rim and outline resembled those of Krater 4, but that it was shallower and had a rounded base. Its legs were angular and its handles in some way unusual.

¹⁵ Specimens of this also cannot now be found. It was

not drawn, but photographs of three examples are shown in PLATE 2*a-c*.

¹⁶ PM i. 578.

¹⁷ BSA xxx. 68.

¹⁸ Decorated tripod legs seem to have been a traditional fashion in Lasithi, BSA xxxviii. 31, tripods 5 and 6.

¹⁹ The development of live forms from abstract ones also occurs with painted decoration, see p. 31.

²⁰ BSA xxxviii. 80.

79, where another oven existed, but they were also common in 129, part of the 'Peak Sanctuary'.²¹ They are hand-made and their bases are always very rough and thin off rapidly, so that they have never survived for more than two or three centimetres beyond the angle of the side. This angle itself varies considerably from place to place on the same vessel and sometimes the rim is pulled completely in, forming a kind of lip spout in reverse (PLATE 12a, third row right). Occasionally there is a hole near the base. The whole shape is so irregular that it can be better understood from a photograph than from a drawing (PLATE 2g), but in FIG. 6, 6 an attempt has

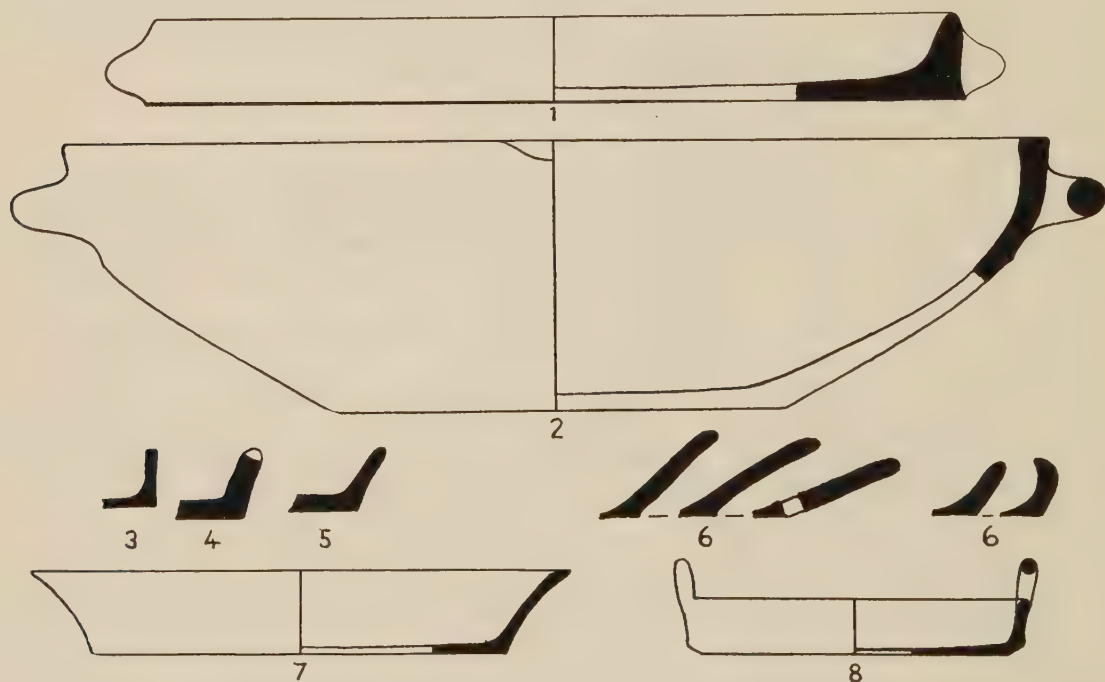


FIG. 6. DISHES. From 149, 80, 50, 31, 40, 75, 113, 132. SCALE 1 : 4

been made, by giving sections of three sherds from one vessel and two from another, to show the characteristic features. The complete lack of bases suggests either that only the rims were important, and that they were fashioned *in situ* without proper bases, or that the bases always came into contact with fire and soon burnt through. Existing rims show no particular traces of fire, but they are in dark ware, on which blackening would not be obvious, and since the diameter must have been about 50 cm. and not much more than half of the complete circumference was ever recovered, it is possible that those parts which were most burnt merely disintegrated. None was found in or near the tombs.

The only dishes in anything but coarse, or fairly coarse, red ware belong to types 3 and 8. Both these types are, however, rare, the latter being known from one example only (from 132). Types 1, 4, and 5, which are the most frequent after 6, are nearly always in dark, gritty clay. The first seems to be hand-made. It may be a lid, but its base (i.e. top if a lid) is always un-

²¹ Mr. Sinclair Hood tells me that many sherds from similar objects were found outside the tombs at Ailias, Knossos.

decorated and left completely rough (PLATE 2f). Probably, like a modern kitchen plate, it was used indiscriminately both as receptacle and cover.

Type 1 has lug handles projecting from its sides, but type 4 has horizontal handles, and there are some fragments resembling the former but with handles similar to those of the latter. Type 2 has a spout as well as handles and is easily distinguished by the curve of its sides. It is, however, represented by only one vessel (from 80), the base of which is restored, and since it appears to be thinning down a little at the break the shape may have been less solid than it now appears (PLATE 3c). Types 3, 4, and 5 vary only in the angle of their sides, but type 4 is the most common and this often has finger impressions on the rim which may have served some similar purpose to the wavy rim of type 6 (PLATE 12a, third row right).²²

Dishes are nearly always undecorated, if the irregularities in rims of types 4 and 6 are excepted on the grounds that they were for use rather than ornament. There is one example of type 7 which has the upper part of its rim incised in the manner of Basins 5. Type 8, which has a dark wash on its outer surface, is the only one which was certainly painted (PLATE 4d).

7. *Kalathoi* (PLATES 3d, 4a-c, FIG. 7)

Kalathoi form a very distinctive class since, except for types 5 and 6, which are each represented only by one whole example and a few scattered sherds, they vary little in size or fabric. Their use is uncertain, but it must be remembered that a number of olive stones were found in the base of one (from 102).²³ They were frequent throughout the city, but in five rooms occurred in particularly large numbers. In 114 there were six, in 28 and 80 seven, and in 26 and 58 at least eight. This distribution is very similar to that of pyxides (see p. 18) and, since all these rooms are adjacent to places where cult objects were found,²⁴ it seems likely that both classes, although also used for household purposes, were in favour as offertory vessels.

This view is supported by the fact that the figure of a goddess, rising from a typical kalathos and with what looks like a miniature one on her head, was discovered in 149 (PLATE 4c).²⁵ The Karphi kalathoi are, indeed, very comparable to offertory vessels found in the Spring Chamber at Knossos, which Evans relates to others from the Dictean Cave and from the pillar crypt of one of Hogarth's Houses.²⁶ It is curious, however, that there was no outstanding quantity in the Temple and only one, of type 5, from the tombs (M 16), where pyxides were also absent except for some sherds (M 4).

Kalathoi are always, apart from type 6, in coarse red ware and generally rather carelessly made. The sides often become so thin near the rim that top and base cannot be joined because this part has worn away. In height, apart from type 5, they range from about 8 to 12 cm., and their general shape, with somewhat flaring sides, is always the same. The rims may be plain (type 1) or else rather flattened to leave room for incision or knobs (types 2 and 3). The bases are offset to a lesser or greater extent (types 1 and 3), and sometimes the projection turns up at the edge (type 2). The types illustrated show these variations, but it should be noted that any rim may occur on any base. Type 1, the simplest, is the most common, and type 5 is really only a miniature form of this. Type 4, which is represented by one example only, from the Temple,

²² Cf. *BSA* xxxviii, fig. 18. 4.

²³ *Op. cit.* 95.

²⁴ 114 seems to be connected with 106 and is just across the road from 116, in both of which cult objects were found. 26 and 28 are in the same building as 27, where the rhyton with three bulls' heads, &c., occurred. 58 and 80 are part of the 'Priest's House'. Whether these places were really

household shrines, or whether they were shops in which offerings could be bought *en route* for the Temple, remains for speculation.

²⁵ Cf. the goddess in a hut-urn from the Spring Chamber at Knossos, *PM* ii. 129, fig. 63. A detached figure, apparently from a kalathos, was found in 85, *BSA* xxxviii, pl. xxxii. 2. 514.

²⁶ *PM* ii. 134, fig. 68.

has a handle and opposite to it two knobs. Type 7 lacks a rim, but the shape probably resembled that of Basins 2. Type 6, in fine buff ware, has heavy ridging on rim and handle and round the base. Its sides bear an intricate pattern of double-axes and hatchings (PLATE 4*a*) and its interior is covered with a dark wash. In shape it seems to be a survival from at least L.M. IIIB, and even the little cup on the rim has several parallels, although its use remains obscure.²⁷ Its decoration must, however, make it contemporary with the rest of the Karphi material.

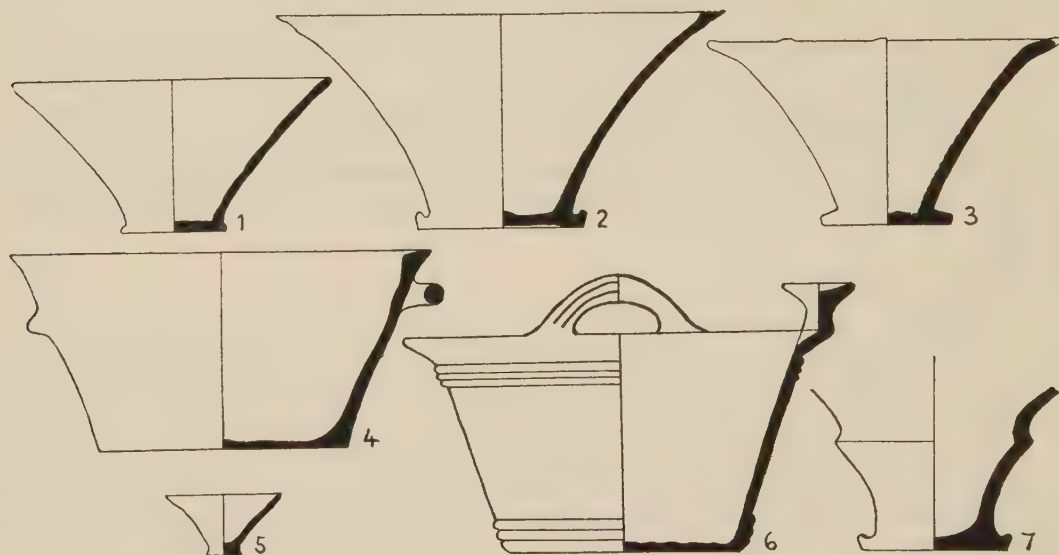


FIG. 7. KALATHOI. From 148, 9, 38, 1, M 16, 68, 80. SCALE 1: 4

8. *Lamps* (PLATE 12*b*, middle row, FIG. 8)

Only one type of lamp is known, but there seems to be no doubt as to the use of vessels of this shape, since their sides are often blackened by fire and most frequently they are represented by the handles alone.²⁸ In fact none worth restoring can now be found. Many rooms contained fragments of one example, but in no case were more than two noted from the same place. One was found in the street outside the 'Barracks', perhaps inadvertently dropped there on some dark night. They did not occur in the tombs.

The fabric and shape greatly resemble those of kalathoi, but where the handle joins on, the side is pushed in so that the outline of the rim becomes heart-shaped instead of circular. The handles vary in length and curve, but there is nearly always a round impression near the tip. Other decoration is limited to incised lines round the flattened rims.

9. *Two-handled Jugs* (PLATE 5, FIG. 8)

The definition of jug is applied to any vessel primarily intended for pouring, but the class naturally overlaps with that of jars. It is also often impossible to tell whether there were two handles or one. The present shape is known to have been fairly common, but only in 109 and 136 did more than two examples certainly occur in the same room.

²⁷ BSA Suppl. 86, fig. 70; *Adelt* 1920, 161.

²⁸ Cf. BSA vi. 105, fig. 35, from the Dictean Cave.

Evans, however, regards the larger examples from the Spring Chamber as incense burners, *PM* ii. 135.

Two-handled jugs are found in all forms of red and buff ware, and there is at least one in blue. Types 1 and 2 are usually in fine, or fairly fine, buff and types 3-5 in coarse red. The neck seems in general to have been added separately and the handles then applied. The latter, particularly on type 1, have often split away from the shoulder.

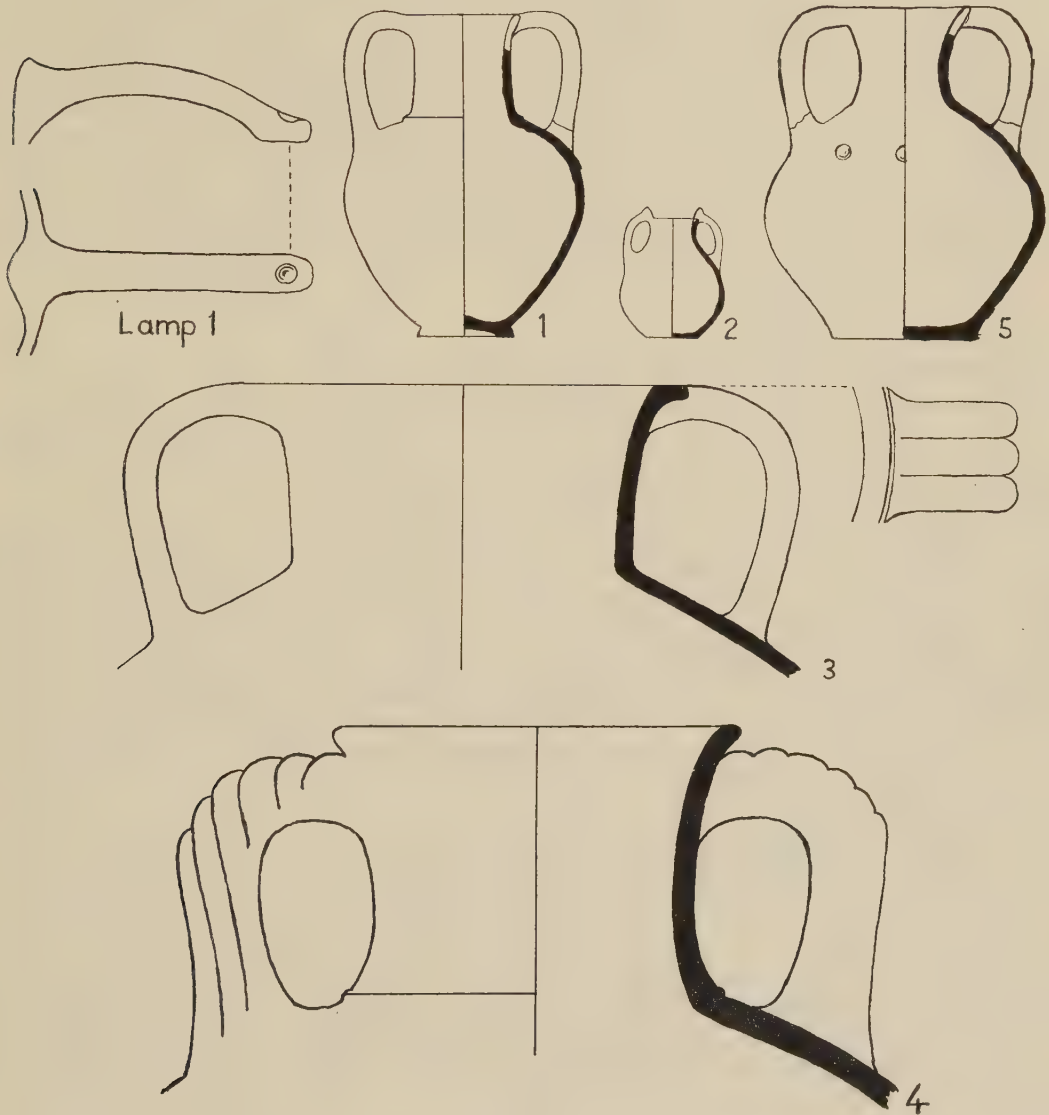


FIG. 8. LAMP, TWO-HANDLED JUGS. From 116, 148, 23, 75, 85, 70. SCALE 1:4

These vessels always have a more or less globular body and high neck. The handles join at the rim (only in type 4 on the neck) and on the shoulder. They seldom project appreciably above the level of the rim. The knobs, or thumb-rests, on type 2 are unusual, but are sometimes paralleled on larger specimens. There is often a slight ridge round the bases of the neck (types 1 and 4),

showing where it was joined to the body. Bases may be either flat or ringed, but the former is the more common, particularly on types 3-5, which greatly resemble the modern *stamni*. Fragments from a small pilgrim-flask occurred below the floor in 12, but too few and worn to be typed. This shape was fairly common during the Intermediate Period,²⁹ and it is curious that no others were found. Perhaps, like the rhyton from 123 (see p. 28), it was brought up by the first settlers.

Types 3 and 4, in red ware, are undecorated except for their ornamental handles. Type 5 is also plain apart from the knobs on its shoulder. No white paint or slip has been certainly noted on any of these, but there are some sherds (from 23) thus decorated which could have come from a large jug of type 4 or, more probably, from a stirrup-jar. Type 1, if in buff clay, was almost always painted. Unfortunately no designs have been preserved well enough for recognition, but it seems as though the most usual decoration consisted of horizontal lines below the shoulder and some simple pattern between these and the neck. One example (from 149) may show a much-stylized octopus. Type 2 was also probably painted, but the only whole example is from 23 and was much blackened by fire³⁰ (PLATE 5*b*).

10. *One-handled Jugs* (PLATE 5, FIG. 9)

One-handled jugs are more common than two-handled ones and show a greater variety of shapes. One to three were represented in most rooms.

Types 1, 2, 4-7, and 10 are most often in fine, but soft, buff ware, type 3, the simplest, in coarse buff, varying to greyish-blue, and types 8, 9, and 11 in coarse red. Necks and handles are generally added separately, as is the rather high base of type 6.

The most common shape is that of type 3, with a slightly bevelled rim, squat body, and flat base, but types 1, 2, 6, and 7 are all too much alike to tell from which casual sherds have come. The miniature examples 4 and 5 are rare. Type 8 resembles jars 3 and 4, but has only one handle and opposite to this a small lip spout. No specimen of type 9 which could be restored was found, but its shape must have been much the same as that of type 1. Its spout is well made and strengthened below by a thickening, from which it became known as 'wattled' (PLATE 12*b*, bottom row, second from right), but, although it seems a practical shape, it is represented only in three or four instances. Of type 10 there is one example alone (PLATE 5*a*). This was found in 87 together with the clay horse³¹ and may have been for ritual use. Its shape and decoration suggest a metallic original.

One-handled jugs in coarse red ware are undecorated except that type 9 often has a twisted handle. Type 11, comparable to Two-handled Jugs 5, has knobs on the shoulder. Type 3 may have, if in dark clay, a white wash or slip on which dark lines are superimposed, if in buff clay, similar lines painted directly on the surface. Type 2 has a triple handle and type 6 a narrow punctuated band round the base of the neck. Both these and types 1-7 show traces of dark designs on the body resembling in arrangement and style those of the two-handled jugs described above. Type 5 is sometimes decorated in red and type 10 seems to have had dark paint in addition to its incisions, after the manner of Tankards 2. Unfortunately none of these vessels is in hard fabric and all are in poor condition.

11. *Side-spouted Jugs* (PLATE 5*b*, *d*, FIG. 10)

This is rather an uncommon class, but specimens were noted in about fifteen instances in the city and also occurred in the tombs. Such vessels are usually referred to as 'feeding-bottles', but their use is really uncertain.³² They occur both in coarse and fine buff clay, the latter pre-

²⁹ AC 309.

³⁰ BSA xxxviii, 80.

³¹ Op. cit. pl. xxxii. 1.

³² Cf. BSA xlii. 53.

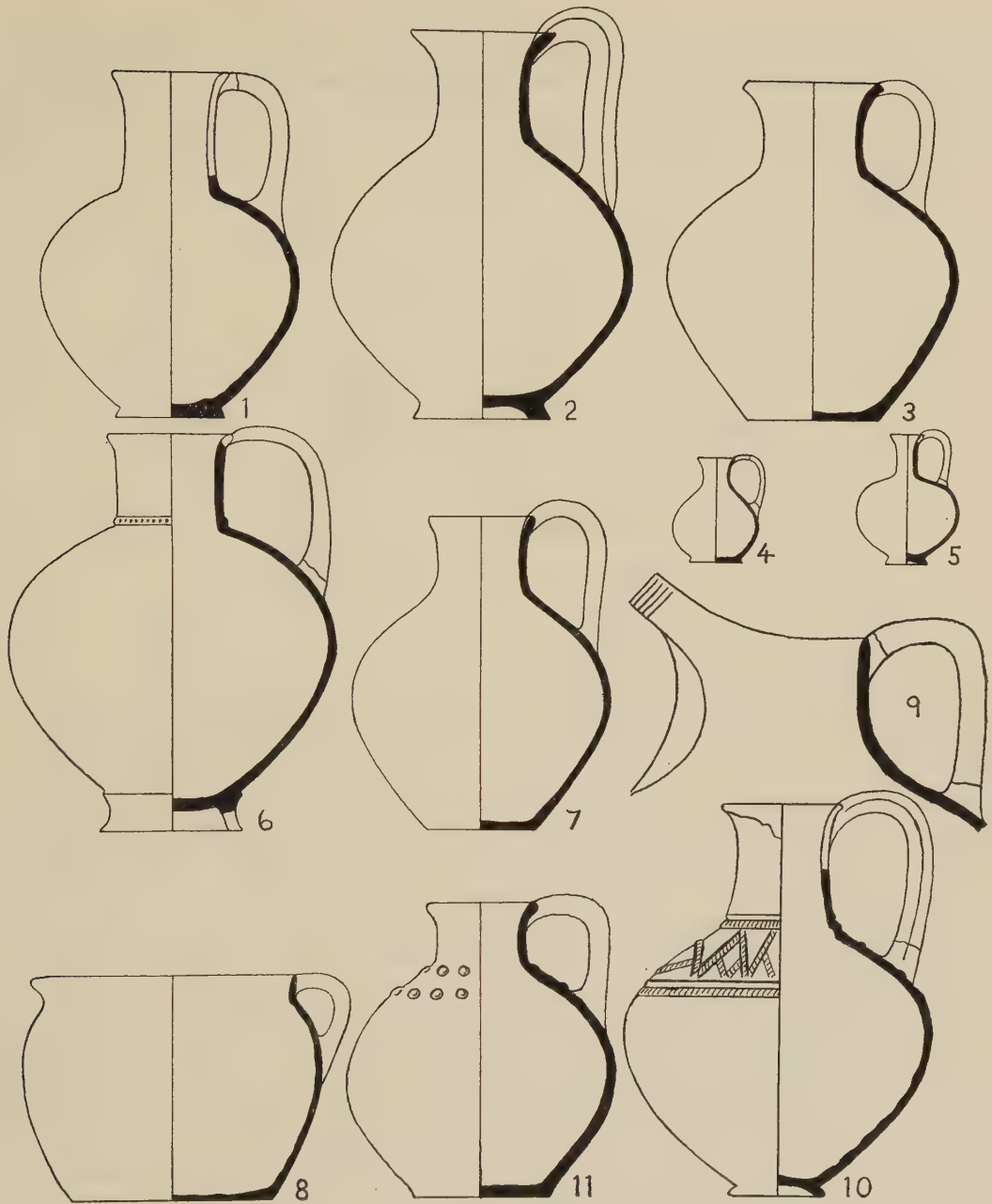


FIG. 9. ONE-HANDED JUGS. From 3, 148, 23, 26, 89, 147, 11, 148, 56, 87, 114. SCALE 1:4

dominating, and there are two examples in white slipped blue ware from the Temple (PLATE 4*b*, top right). Spouts and handles are added separately.

Type 1, with offset base, is more common than type 2, but since it was generally by the spout alone that they were recognized their proportionate frequency cannot be stated. Type 3, with a vertical handle opposite the spout, and type 4, without any handle at all, are both rare.

In coarse ware the decoration seems to consist of horizontal lines of paint applied either directly to the surface or else over a light wash, according to the body colour of the jug. In fine ware there is generally some further design on the shoulder, but, owing to lack of space, this too is simple. A few sherds and the example drawn of type 3 (from M 11, PLATE 11*b*) show that the 'blob' decoration more commonly found on cups and bowls (see pp. 20 ff.) was also sometimes used on this class of vessel.³³

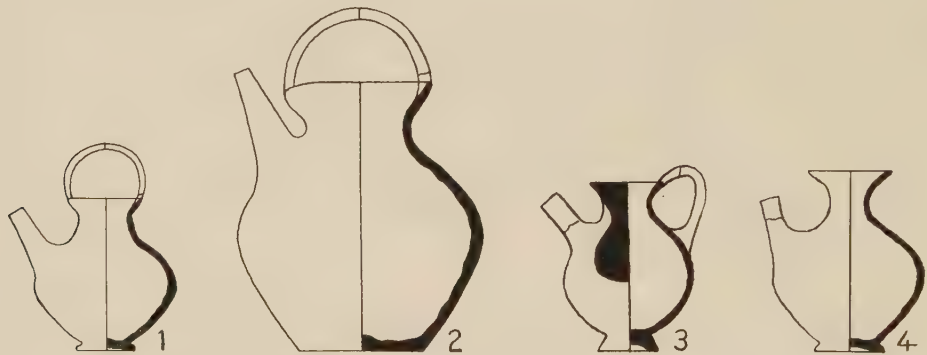


FIG. 10. SIDE-SPOUTED JUGS. From 11, 23, M 11, M 17. SCALE 1:4

12. *Stirrup-jars* (PLATES 6, 11*a*, FIGS. 11, 22)

Stirrup-jars of all sorts were common both in the city and in the tombs. They vary so much in size that they cannot all have been used for the same purpose. The small ones may have contained some precious liquid, but the largest must have been treated as store jars.³⁴

They occur in every possible ware and may be anything from 10 to 50 cm. high. Both real and false spouts are added separately, the method apparently having been to build up the body until only a small opening remained, to pierce a hole at one side over which the real spout was applied, and to fit the false spout, already furnished with two handles (never three) which would reach to the shoulder, in at the top. This was done irrespective of size and of whether the false spout was solid (types 1-4 and 6-7) or hollow and pierced (types 5 and 8).

The most usual shape is that of type 2, with a globular body and ring base, but from sherds alone it is impossible to distinguish this from type 1, which it greatly resembles. Type 3, with an air-hole at the back of the neck, is rare and so is type 4, which is taller and has a knob on top of the false spout.³⁵ Types 5 and 8 have the false spout left hollow with an air-hole pierced through the disk.³⁶ Most of the large stirrup-jars in coarse ware belong to the latter, and the air-hole may be anything up to a centimetre across (PLATE 12*b*, bottom right). They are roughly made and, as in the example drawn, the false spout is often not properly centred. Type 7 is known from three examples only (from 47, 80, and 83), all in fine ware. It should be compared with the similarly carinated pyxis (Pyxides 7).

Stirrup-jars in coarse red ware seldom have any decoration, but some sherds which seem to go with a stirrup-jar top, although possibly coming from a jug (from 23, see p. 14), have traces of white paint. Those in coarse buff generally have lines of dark paint round the body and

³³ A very similar vessel is dated by J. Brock to late Protogeometric, *Fortetsa* 153.

³⁴ Cf. *BSA* xlii. 24.

³⁵ Cf. *PM* ii. 136.

³⁶ This shape does not seem to have been noted from any

other site. Logically it should be the immediate forebear of that with an open neck, which J. Brock considers to have been invented at the end of the Protogeometric Period, *Fortetsa* 153.

sometimes octopus tentacles can be discerned. Necks and handles are outlined and there are usually concentric circles on the disk of the false spout. Such as exist in blue ware seem to have had a white slip with dark patterns, but they are few and worn. The small, fine specimens are always decorated on the shoulder and generally have horizontal lines round the widest part of

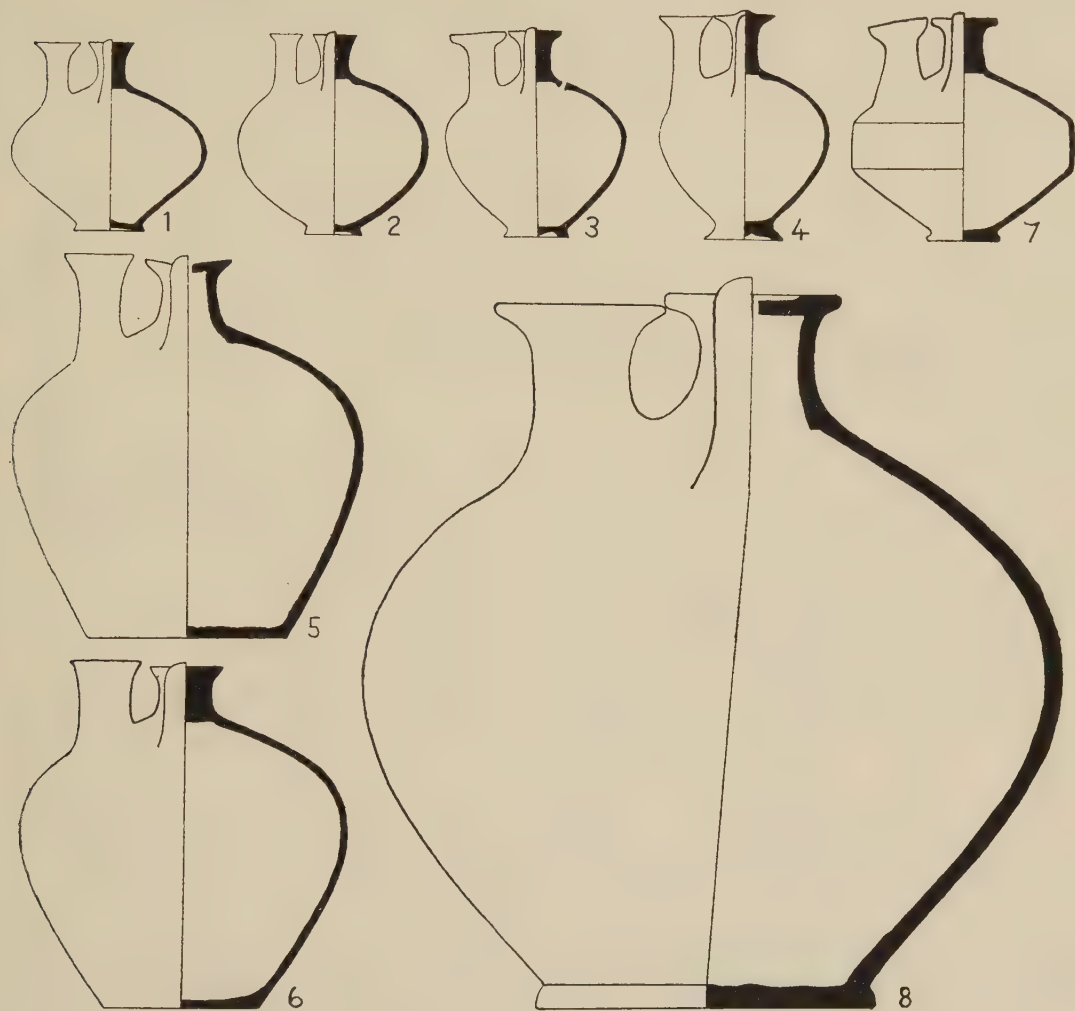


FIG. 11. STIRRUP-JARS. FROM A 1, M 3, M 4, M 3, 33, M 8, 47, 26. SCALE 1 : 4

the body as well as lines on handles and spouts. The designs have a wide range, and although plain cross-hatchings, similar to those on a stirrup-jar from Karakovilia,³⁷ exist (FIG. 22*k*), they most often approximate to the middle-east Cretan close or 'fringed' style.³⁸ The intricate but very well executed octopus shown in PLATE 6*b* is almost exactly duplicated on several more fragmentary vessels (all probably from the same hand), and should be compared with other

³⁷ *PM* ii. 137.

³⁸ Pendlebury had already adopted this term in *BSA* xxxvii and xxxviii. It is more descriptive than 'close' and

less cumbersome than 'middle-east Cretan'. The latter also tends to imply that the style originated in Crete, which is not proved.

ornately stylized octopods on stirrup-jars from Cretan and other sites.³⁹ Unfortunately much of it is missing and the rest badly preserved.

13. Pyxides (PLATES 7, 8a, b, FIGS. 12, 23, 24)

Fragments from pyxides occurred frequently, but most of the comparatively whole ones were found in groups in certain restricted areas. There were three in 22, 110, and 114, four or more in 80, and as many as six (though these were ill preserved) in 116. They must have been used, like present-day ornamental boxes, to contain jewellery or other valuables.⁴⁰ Their distribution,

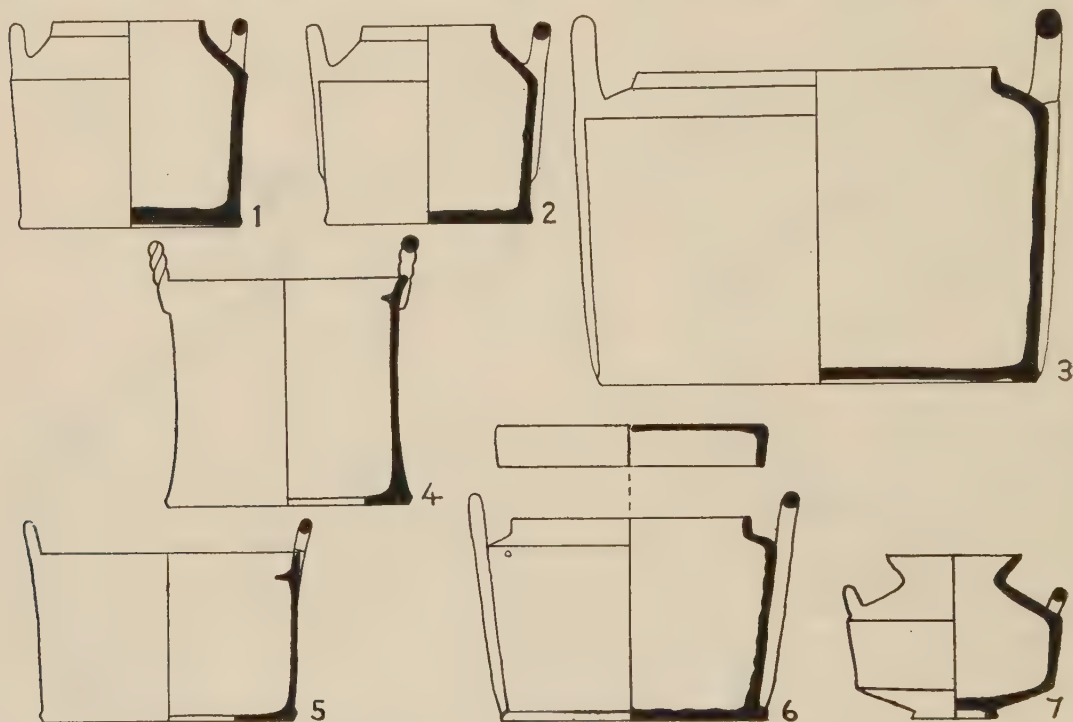


FIG. 12. PYXIDES. From 8, 14, 22, 43, 147, 114, 80. SCALE 1:4

which is so similar to that of kalathoi (see p. 11), suggests that they also frequently contained offerings, and the fact that their decoration nearly always includes horns of consecration or double-axes supports this view, while their general shape is curiously reminiscent of that of hut-urns.⁴¹ Similar pyxides have been found at a number of contemporary sites in Crete⁴² but generally in association with larnax burials, and also occur on the mainland late in L.H. III.⁴³ At Karphi there were only two fragmentary examples from the tombs (both from M 4), but it

³⁹ Especially from Moulana, *PM* iv. 372, fig. 311. The close association between stirrup-jars, large and small, and octopus patterns, plain and fancy, throughout their histories still requires explanation. A list of late octopus-decorated stirrup-jars is given by T. Skeat, *The Dorians in Archaeology* 25; cf. also *BSA* xlii. 23.

⁴⁰ One (without handles) from a L.M. III burial at Pakhyammos was found containing a necklace, *Κρητικά Χρονικά* 3 (1954) 403.

⁴¹ Cf. *PM* ii. fig. 63, which has handles as in type 1. See also below, p. 28, where a basket-work connexion is suggested for both shapes, although admittedly the pyxides may be derived from L.M. II alabastra.

⁴² *AC* 309. They continue into Protogeometric (*BSA* xxix, pl. vi. 11) and the larger Karphi examples have parallels in 'straight-sided pithoi' from Fortetsa which J. Brock dates to Protogeometric B, *Fortetsa* 147.

⁴³ *BSA* xlii. 43.

is possible, since all the tombs had been robbed in antiquity, that these boxes had been removed together with their contents. They presumably all once had lids, although only two were found with lids which actually fitted (from 110 and 114). The latter of these has four small holes bored through the shoulder (type 6), and a parallel from Palaikastro was thought to have had this done so that the interior could be lined to preserve the contents from damp.⁴⁴

Pyxides occur in coarse ware, both red and buff, but they are most common in the various fine fabrics. The best specimens are in hard buff, but there were actually just as many, if not more, in soft buff and red, either slipped or plain. They are obviously wheel-made, but seem to have been allowed to dry on the stand on which they were shaped, for their bases show no striations, but are rough and uneven.

All except type 7 are cylindrical, generally with a sharp incurve at the top and a low up-standing rim (types 1-3 and 6), but sometimes as wide at the mouth as below and furnished with an inner ledge for the lid (types 4 and 5). The carinated type, 7, which is exactly paralleled from Milatos,⁴⁵ is represented by two specimens only (from 80 and 75). Types 1-3 vary only in the extent to which their handles are continued down the body. The most common is 2, on which they extend only part of the way and are sometimes triple (PLATE 7*b*). In type 4 the handles are twisted and set on at the rim to form an arch in line with the side. Type 5 is similar but with plain handles.

Large pyxides in coarse red ware are apparently undecorated and those in coarse buff seem only to have fairly simple, widely spaced, designs in dark paint. Those in fine red with a white slip may have had just as intricate patterns as those illustrated in fine buff (FIGS. 23, 24), but their surface is always in poor condition. Luckily a number of the designs on the buff could be made out, for the plain cylindrical sides gave the artist every opportunity to show what he could do. The arrangement is always in panels divided by the handles and often subdivided between them. The 'windmill' pattern (FIG. 23*a*) appears to be peculiar to Karphi, but birds and horns of consecration appear on the example already quoted from Pakhyammos, and the design shown in FIG 24*b* is paralleled on a pyxis from Moulana.⁴⁶ The decoration on the lid of type 6 (FIG. 24*a*, 1), with apparently compass-drawn circles, is unique.

14. *Tankards* (PLATE 8*c*, *d*, FIGS. 13, 22)

Tankards are a rare class, unfortunately, for they include two of the most imposing vases found on Karphi, and isolated sherds prove that their decoration was always of interest. It is possible that they were for ritual use, and they seem to derive from metal prototypes.⁴⁷

It is not known for certain whether they occur in anything except fine ware, but a few spouts in coarse red clay are difficult to connect with any other shape. Like pyxides, they were not removed from the stand on which they were made until their clay had hardened.

There is only one complete specimen of each type, but from scattered sherds it appears that the spouted varieties (types 1 and 3) were the most common. Of course unless the spout itself was found it is not possible to tell from which type parts of rims or bases have come. There is one sherd (from the surface of the 60's) showing strainer holes where the spout joins the side, which perhaps should constitute a fourth type, but the shape of the body is unknown.

⁴⁴ *BSA* Suppl. 94.

⁴⁵ *ADelt* 1920, 155, fig. 2. This is said to be L.M. III.

⁴⁶ *AE* 1904, 35, pl. 2. Evans derives this pattern from double-axes embedded in pillars (*PM* iv. 349), and Stubblings terms a rather similar Attic design a 'disintegrated cephalopod' (*BSA* xlii. 40), but neither explanation seems altogether satisfactory.

⁴⁷ Cf. *PM* iv. 312, where a bronze tankard from Gournes is illustrated as well as the clay one from the Dictian Cave with octopus and chequer patterns. Evans attributes the latter to L.M. IIIA, but its resemblance to the Karphi tankards is striking and it may well be an offering from that city.

If tankards occurred in coarse ware they were probably undecorated. In fine ware the miniature example, type 3, is too much worn for decoration to show, but the larger ones, types 1 and 2, are always beaded round the rim and sometimes round the base and on the sides. They have in addition painted designs in black or red. The graceful curve of their sides seems to have been more inspiring to their decorators than were the heavy cylindrical bodies of the pyxides, which they otherwise somewhat resemble. The mixture of patterns on the example from 26 may show over-elaboration, but is effective on such a florid shape.⁴⁸ The beaded lattice-work combined with red paint on that from M 4 is more restrained and more satisfactory.

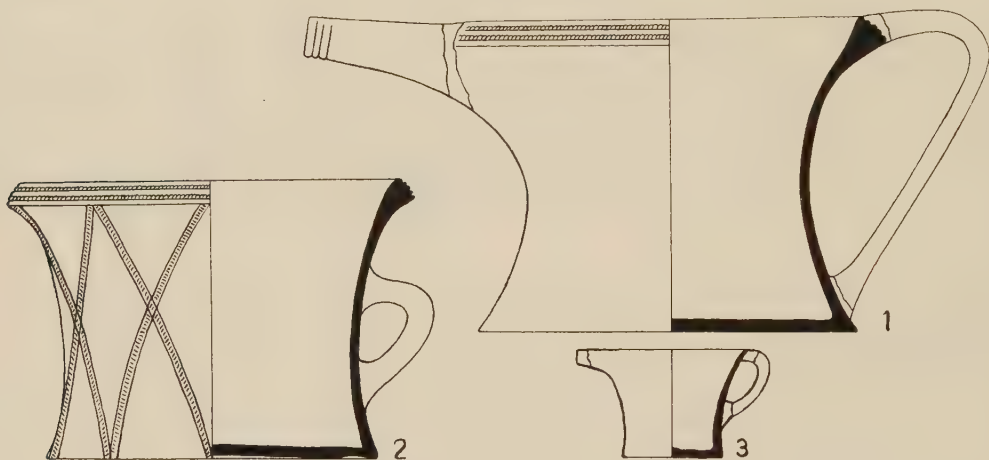


FIG. 13. TANKARDS. From 26, M 4, 17. SCALE 1:4

15. *Cups* (PLATE 8e, FIG. 14)

Cups are distinguished from bowls by the fact that they have only one handle, which is placed vertically. They are comparatively rare.

They are one of the few shapes found only in fine ware, but occur in all varieties of this. There is nothing to note about their manufacture.

Type 1 is rather more common than type 2, but in reality the shape of the side ranges anywhere between the two. Both specimens drawn are from the Astividhero cemetery, for in the city, although cups are known to have existed, their remains were very fragmentary. Bases always appear to be slightly offset and concave from below.

Cups in red or blue ware may have been white slipped and then painted, but, if so, the surface has never survived. Those in buff ware are always decorated in dark or reddish paint. Unlike the bowls, they seem occasionally to have been entirely covered with a dark wash, but the majority have two large blobs of paint dabbed on the sides, which form irregular semicircular patches below the rim, generally, where too much paint had been applied, with a dependent

⁴⁸ Below the spout is a panel of zigzag lines. Next this on either side a panel of chequers. Then, on the left, the 'wind-mill' pattern shown in FIG. 22a, and on the right, first the panel with a foliate spray of which the leaves have, rather surprisingly, turned into fishes (shown in PLATE 8c), and

then two conventionalized double-axes, one above the other, divided by four horizontal lines and with half-circles as filling (cf. FIG. 22b). There must have been another panel under the handle, but this part is missing.

trickle between their lower edges and the base.⁴⁹ Actual patterns, in particular spirals and more or less concentric semicircles, were also sometimes used. These are similar to those found on bowls, and, since it cannot be guaranteed from which class sherds have come, have not been illustrated separately.

16. Bowls (PLATE 10a, FIGS. 14, 21)

Bowls were by far the most common class of small vessel, fragments from them occurring in every area excavated. Comparatively few were found intact, but they must have been easily broken, even during the period of occupation, for sherds from them were particularly frequent

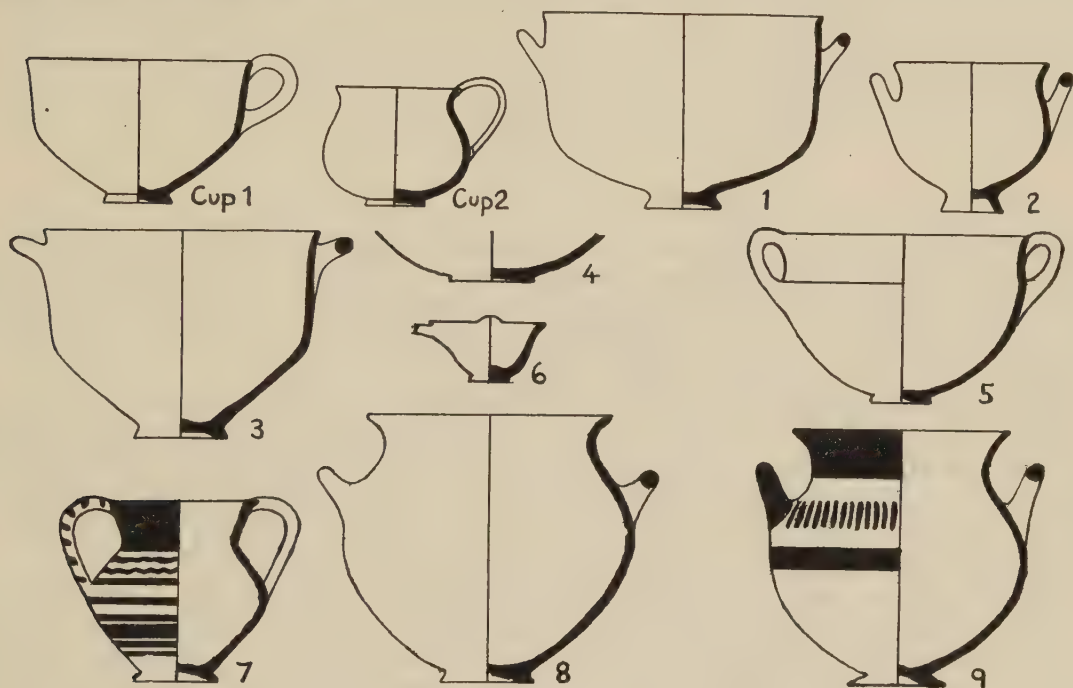


FIG. 14. CUPS, BOWLS. From A 3, A 1, A 3, 27, 117, 23, 121, M 17, 115, M 17. SCALE 1:4

in the rubbish dumps below the western extensions of the 'Great House'.⁵⁰ They differ from cups in that they have two handles, generally placed horizontally, and from kraters in their size and type of decoration.

They are nearly always in fine ware, either red, buff, or blue, but with the buff predominating. In fact there is only one certain example (of type 5) in coarse ware. They offer no scope for peculiarities of manufacture, but one (from 110) which, except that only its base was preserved, might constitute a new type, has fluted sides.⁵¹

Types 1-4 are almost indistinguishable by their sherds alone, but type 1 seems to have been rather more common than the other three. Type 5 is distinguished by its vertical handles and

⁴⁹ *BSA* Suppl. 85, fig. 68. 2, shows an earlier example of this decoration, and J. Brock, *Fortetsa* 143, pl. 21, 291, a Protoegeometric A one.

⁵⁰ *BSA* xxxviii. 77.

⁵¹ Unfortunately I cannot now find this, but believe that it suggested a metallic original.

slight ridge below the rim. On a larger scale it is paralleled by Krater 4. The lip-spouted type 6, with a lug on the rim, is rare. A few bridge spouts also occurred, possibly from bowls. Types 7 and 9 are from M 17. The latter is distinguished from type 8 (from 115) only by the angle of its handles.⁵²

A few fragments in red ware still retain a white slip with further dark decorations, and vessels in blue ware probably once had the same finish, although one would prefer to think that their odd colour was allowed to show. Those in buff have either the 'blob' decoration already described on cups (particularly type 2) or else a band round the rim with patterns below. The ends of handles are also outlined. The patterns themselves are simple and not very varied. A representative series is shown in FIG. 21. Hooked spirals are perhaps the most frequent, except on type 5, where a wavy line below the rim is characteristic (PLATE 10a), but more complicated motives, including flowers, fishes, and double-axes, also appear. The 'scorpions' on the example from 115 and also the 'face' from 76 (probably of octopus derivation) are unique. The inner surface is generally covered with a dark wash, but more or less concentric circles and spirals with a thick outer circle sometimes occur inside bases of type 4.

17. *Kraters* (PLATE 9, FIGS. 15-17, 25, 26)

Sherds from about one to three kraters came to light in most rooms and it was possible to collect the remains of a number of restorable examples. This suggests that they may have been most popular towards the close of the period of occupation, but it must be remembered that they are a strong class of vessel and also one of which sherds are easily recognizable. They were certainly represented in the earlier rubbish dumps.

The existence of kraters in really coarse ware is only to be inferred from a few sherds, in particular a base of type 5 and handles of type 10, which seem impossible to assign to any other class. They are not uncommon in gritty buff clay, but are most frequent in the usual fine buff fabric. One sherd (from 62) with a bird depicted on it (FIG. 25g) is unusual. It is in hard pinkish clay with a smooth white slip and purplish-red paint, and could conceivably be an import, although its pattern does not suggest this. Bases and handles are added separately.

The general shape, with a distinct, often high, foot, hemispherical body, and slightly out-turned rim, is the same in all cases. It does not appear to have any Minoan antecedents,⁵³ but may be compared with Protogeometric kraters from Knossos.⁵⁴ Types 1 and 3 are the most common, but type 2 is also well represented. Of type 4, with vertical triple handles and a ridge below the rim, there is a single example (from 23, PLATE 9b). Types 5-9 show various bases, but 6 and 7 might perhaps be more appropriately classed with bowls. Type 10 again is known only from one vessel (from 131). Except for its vast size and its doubly arched handles it resembles type 3.

There is no evidence of decoration on kraters in coarse red ware. In all other fabrics, however, they are elaborately painted, although it is as a rule only on those in hard buff clay that the designs can be made out properly. The inside has a dark wash and there are generally bands of paint, either black or red, round the rim and below the point where the sides curve in most sharply. The base is often entirely washed over (especially on type 3) and there are always lines outlining the handles. On the sides the patterns vary more than those of any other class.

⁵² Types 7-9 should be compared with vessels shown by V. Desborough, *Protogeometric Pottery*, pls. 31 and 32.

⁵³ Cf., however, the 'horseman' krater from Moulana, which may well be contemporary, *PM* iv. 345, and V. Desborough, *op. cit.* 269f.

⁵⁴ V. Desborough, *op. cit.* pl. 33; *BSA* xxxix, pl. vii. 4. For shape and size cf. also kraters from Marmariade, *BSA* xxxi. 30, which mostly have double handles similar to those of type 10; also the 'Warrior Vase' from Mycenae.

They tend to be arranged in panels and are usually in the 'fringed' style, but they are not so crowded together as those of pyxides and are in consequence far more effective. The central motives include many different forms such as rosettes, flowers, and octopods, but the most striking examples are those on which birds are depicted (FIG. 25*a, b, g*). The animals on that from 131 (PLATE 9*e, f*) are unique, but unfortunately the surface of this vessel is very poorly preserved. The creature which shows up best gives the impression of being a griffin, but it also

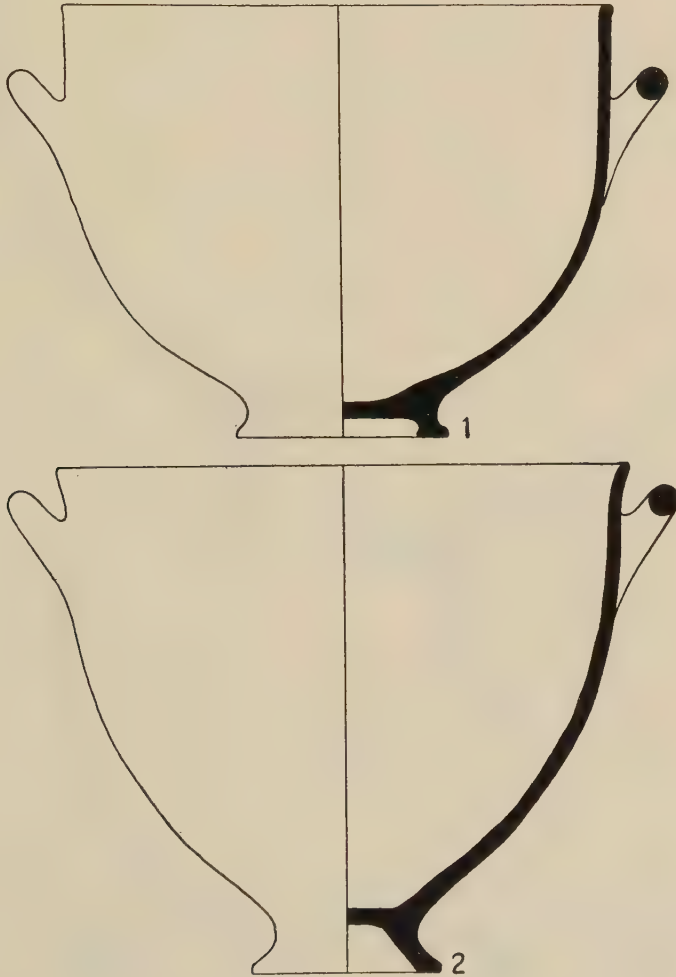


FIG. 15. KRATERS. Both M 8. SCALE 1:4

appears to be male, and all griffins so far found seem to be of indeterminate sex. The two are placed antithetically, facing horns of consecration enclosed between vertical bands of spirals. In the field and above them are some sort of fringed and dotted foliate sprays. The whole decoration is astonishingly reminiscent of Knossos frescoes, and it is tempting to see in it a traditional memory of the palace. On the reverse side the pattern has completely gone.

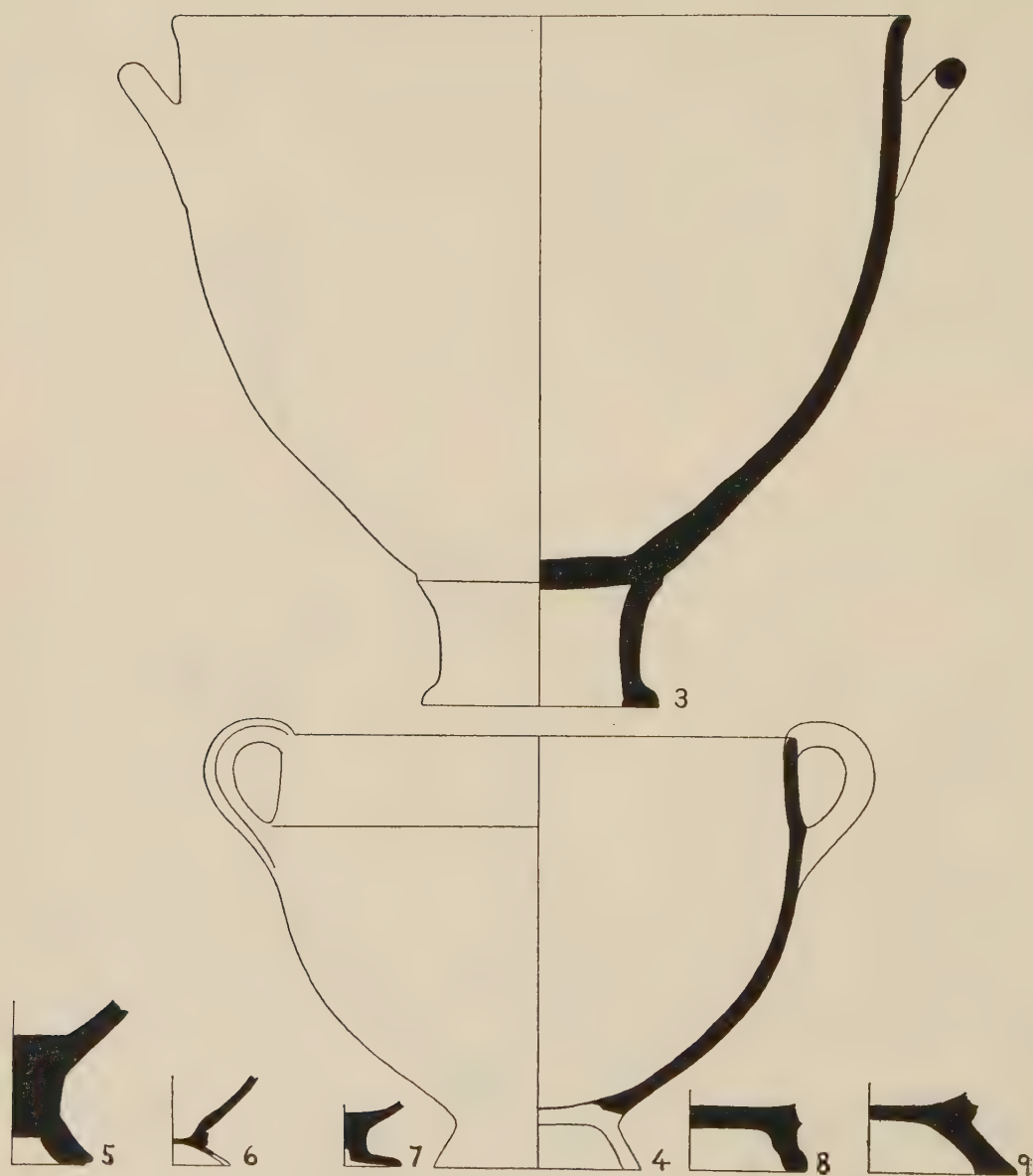


FIG. 16. KRATERS. From 30, 23, 28, 16, 35, 33, 147. SCALE 1:4

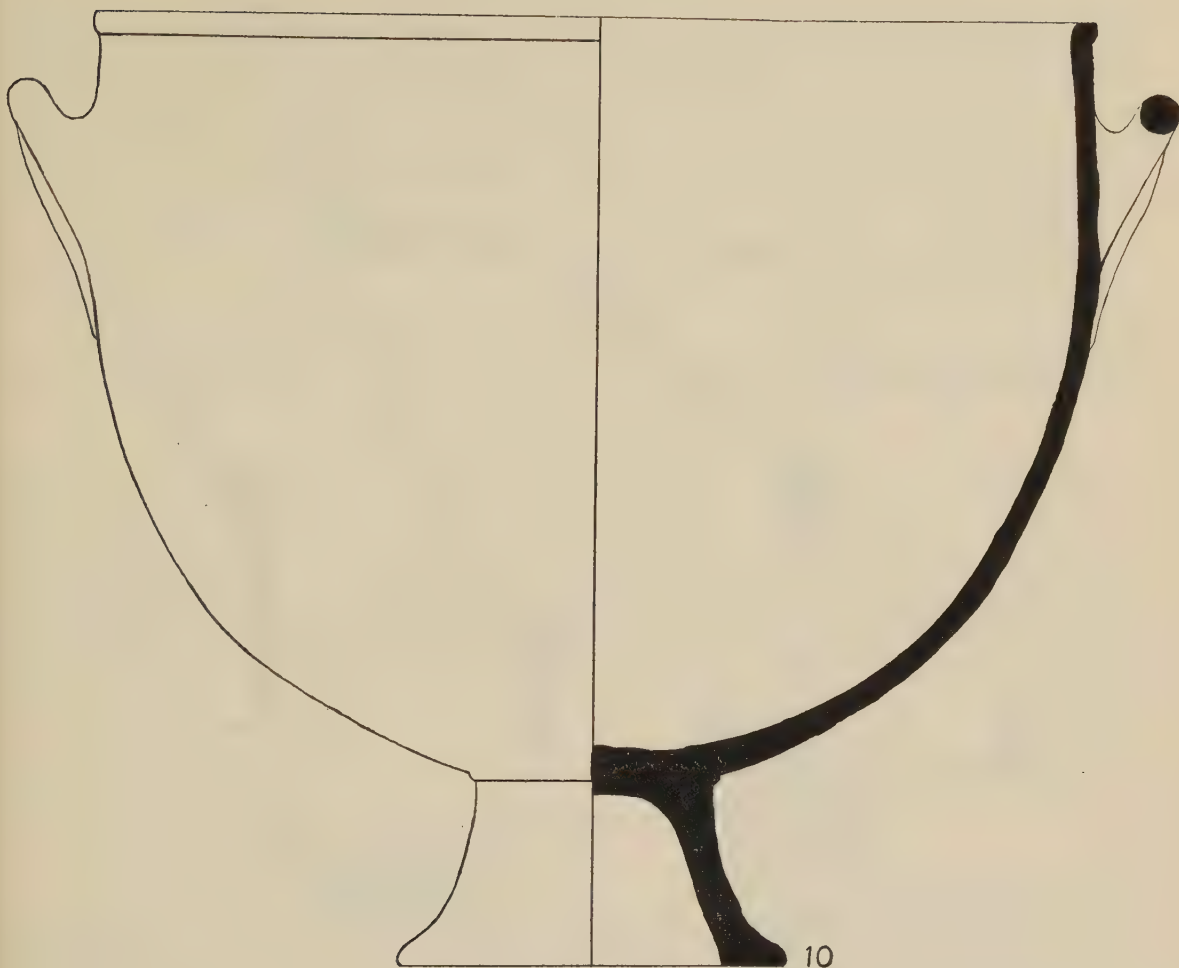


FIG. 17. KRATER. FROM 131. SCALE 1:4

18. Kylikes (PLATE 10*b*, FIGS. 18, 22)

Kylikes never occurred together in any quantity, but fragments of one or two appeared in all the principal rooms. They were also found in the larger Ta Mnemata tombs, but were not represented in the group 9–15 or at Astividhero. They were presumably used to drink from, and their stems often have a convenient bulge to fit the hand.⁵⁵

They have not been found in coarse ware, but in fine are as frequent in red as in buff; and a few sherds occurred in blue. Their stems are always added separately and in nearly all cases have split off from the upper part, the point of which either finishes in a knob, over which they fit, or else is scored across to give a rough surface for the join (PLATE 12*b*, bottom row). Stems which were broken in antiquity were sometimes pierced and sections of them used as spindle-whorls.⁵⁶

⁵⁵ Cf. *Vrokastro* 150, fig. 89*a, c*, for similarly bulging stems, and also ringed kylix-stems from Ithaca, *BSA* xxxiii. 63 and xxxix. 13.

⁵⁶ *BSA* xxxviii. 129.

The most common shape is that of type 1, but its handles were not invariably twisted and its stem should probably be restored with a slight bulge as in types 2 and 3. The rims of types 1 and 2, which turn up sharply with a ridge at the angle, are characteristic and it is possible that the example representing type 3, of which the rim is missing, finished in the same way. At all events it is likely that it possessed handles. Type 4 shows a rather more splayed foot than usual.

The decoration resembles that of kraters but on a smaller scale (FIG. 22*c-e*). Unfortunately all the specimens found were in very poor condition.

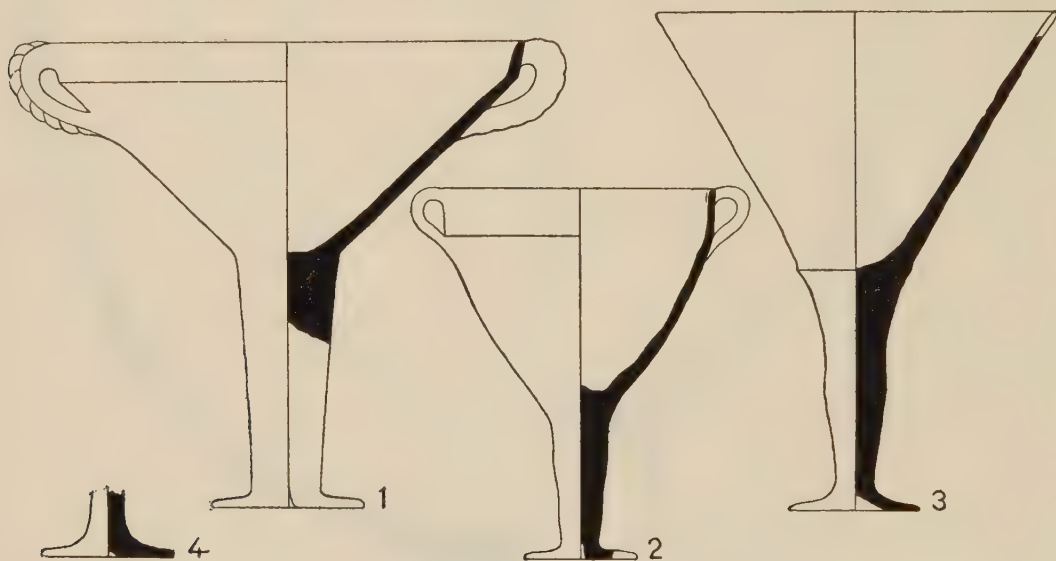


FIG. 18. KYLIKES. From M 4, 3, 7, 116. SCALE 1:4

19. Lids (PLATE 10*c*, FIGS. 12, 19, 24)

Lids vary greatly in size and shape, according to the type of vessel which they were intended to cover. Unfortunately it is only in the case of pyxides that they can be attributed to particular vessels and then in two instances only, of type 7, which belong to Pyxides 2 and 6 from 110 and 114. Curiously few were found, even in coarse ware, and it must be supposed that wooden covers were frequently employed. A few sherds in coarse ware which have been roughly cut into disks probably served as lids, and the base of a jar of appropriate diameter, found together with a small pithos in 96, suggests that sometimes the first thing which came to hand was used when a lid was needed.

Types 1 and 6 are always in coarse ware, either red or buff but with the former predominating. Types 2, 4, 5, and 7 have only been found in fine ware. Type 3 is known from two examples only (from 1 and 97), both in gritty buff clay. The handles of types 1-3 and 6 are added separately, but the knobs inside types 4 and 5 seem to have been pulled up in the course of manufacture. There is a small hole in the centre of type 7 which may have served to attach a button or knot of thread which would act as a handle.

Type 1 is by far the most common, types 2-7 being represented by only two or three examples apiece.

Type 1 is always decorated with concentric bands which are either moulded or incised with designs similar to those found on pithoi (PLATE 12*a*, bottom row). Types 2-6 do not appear to

have any decoration, but it is probable that they were painted, in the same way as type 7, to match the vessels to which they belonged. The design on this last is unique (PLATE 7*a*, FIG. 24*a*, 1). If the pyxis to which it belongs had not been painted in a manner completely characteristic of the site, it would have been regarded as an import.

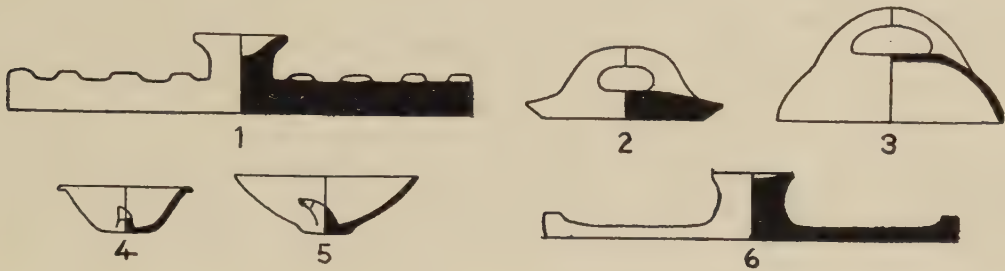


FIG. 19. LIDS. From 47, 2, 1, 3, 11, 22. SCALE 1:4

MISCELLANEOUS

1. *Duck Vases* (PLATE 11*b*, FIG. 20)

Only one whole duck vase (from M 11) and sherds from another (from 130) occurred. This is surprising, since they form a well-known Intermediate Period type⁵⁷ and persist into Geometric times.⁵⁸ These vessels may have had some ritual significance, since they are commonly



FIG. 20. DUCK VASE, RHYTON. From M 11, 123. SCALE 1:4

found in tombs and there was one in the Spring Chamber at Knossos, or they may have been used, like small stirrup-jars, merely as the containers of some precious liquid which was suitable as an offering. The present specimen is very ordinary and requires no special comment.

2. *Hut-urns* (PLATE 10*a*)

There was evidence for at least five hut-urns from the city (from 33, 69, 115, 122, and 147), but none from the tombs. All are either in soft buff or coarse dark clay on which no decoration shows. Presumably each once had its door, although only two of these now exist.⁵⁹ They may

⁵⁷ *PM* ii. 136.

⁵⁸ *BSA* vi. 84 fig. 26. We were shown one from the Papoura which may well be Geometric in date.

⁵⁹ The clay 'palette' from 149, *BSA* xxxviii. 131, is probably such a door, though rather larger than usual.

have been used in household shrines, though there is nothing in their distribution to suggest this, and it must be remembered that one from the Spring Chamber at Knossos actually contained the figure of a goddess.⁶⁰ The oddity of their rounded shape has been commented on at length by Evans,⁶¹ who supposes them to have been derived from wigwam-like rustic shrines. They could, just conceivably, have been model tholoi, but at Karphi sixteen out of the twenty-one tombs excavated were square for the first few courses. Their family resemblance to pyxides has already been noted (p. 18), and it is tentatively suggested that both pyxides and hut-urns may have had basket-work connexions. In the case of the pyxides the connexion was perhaps with a plain, upright-sided basket, with twigs bent and plaited in to various lengths down the side as handles, and circular lid to match; and in that of hut-urns it was perhaps with a round, basket-work cage, with a door which could be firmly shut, where birds (and consequently perhaps goddesses) could be kept as household pets. The pottery hut-urns are, admittedly, too small to have been used as cages, but then, whatever they represent, their scale is unknown.

3. *Rhytons* (PLATES 10a, 13, FIG. 20)

Part of a conical rhyton was found in 123. This is probably of L.M. III date and consequently an heirloom brought by the first settlers. It can hardly be contemporary with the main period of the city, since it is the only one of its kind and its clay appears to be local, making it unlikely to be an import. It has a close parallel from Palaikastro, also decorated with birds and wavy lines.⁶²

The vase with its top in the shape of a human head (already illustrated in *BSA* xxxviii, pl. xxxv. 2, 3) must also be a rhyton, though its base is missing. Fragments from another, similar vase were found in M 11. The upper part of the vessel seems to have been elaborately painted, but it is impossible to make out the design. The lower was covered with a dark wash. This type does not seem to have been paralleled from any other site.⁶³

The rhyton with three bull's heads connected by a hollow ring and surmounted by a male figure is also unique (PLATE 13). Liquid, when poured through the open top of the head, would descend by the hollow trunk and legs into the ring and eventually emerge through a hole in the mouth of the central bull. The whole rests on a separate stand consisting of a solid ring, rather smaller than the hollow one of the top part, borne by three wheels, one in front and two at either side. The object immediately in front of the figure may represent the front of a chariot and is exactly paralleled in a small, detached, figurine from Vrokastro.⁶⁴ There may have been some sort of seat behind the figure, as this part is missing. The whole thing, when found, showed traces of painted decoration and the figure seemed to have a painted beard. This rhyton had broken into many small fragments, as though it had fallen, or been thrown, from a shelf when the site was abandoned, but there is no doubt that its restoration is substantially correct. Bull and bull's head rhytons have a long tradition in Crete, but this is certainly the most elaborately conceived of them all.

4. *Altars or Stands*

Two altars or openwork stands have already been illustrated in *BSA* xxxviii (pls. xxxiv and xxxv. 7). There were many fragments from another, in soft red clay with herring-bone incisions,

⁶⁰ *PM* ii. 128. Cf. also *Κρητικά Χρονικά* 4 (1950) 441 and *BSA* xlix. 221 for two larger model shrines. The latter example has been described as a hut, but its inside ledge suggests a shelf for miniature cult objects, on the principle of the Shrine of the Double Axes.

⁶¹ *PM* ii. 129.

⁶² *BSA* x. 214.

⁶³ It may be worth comparing with a Janus-headed vase

in the Ashmolean from Piskokephali, no. *AE* 1102. In this the faces are large and the neck tapers to a point, but its style shows considerable affinity with the Karphi goddesses and its ears are pierced, perhaps for ear-rings or the attachment of a garland, as are those of the two largest of the goddesses.

⁶⁴ *Vrokastro* fig. 96d.

but too worn for reconstruction, in M 8, and a number of disconnected sherds in the city. These objects were evidently meant to support vases,⁶⁵ but whether charcoal was placed in them to warm the contents of such vases,⁶⁶ or whether they were altars in the sense of raising offerings from the ground, is doubtful. Those from tombs are always plainer than those from dwellings and perhaps had some rather different significance. Certainly that from 57, which seems to represent the architecture of a shrine with stepped pillars, rectangular windows and massive horns of consecration, suggests an altar rather than a brazier.⁶⁷ The four recumbent animals at the top corners seem to be bulls.

5. *Snake Tubes*

Objects, or parts of objects, resembling snake tubes⁶⁸ were found in 1, 7, 58, and 70. The two most complete of these have already been illustrated in *BSA* xxxviii (pl. xxx. 7). The rest are very fragmentary. One hollow base, probably from this class, is square instead of round. It seems too narrow to have been a stand.

6. *Goddesses* (PLATE 14)

The two largest goddesses and the plaque with a human head from the Temple, as well as the horse from 87 and most of the figurines, have already been illustrated in *BSA* xxxviii. Three smaller goddesses from the Temple are here shown in PLATE 14. They are less ornate in head-dress than the larger ones, their ears are unpierced and only one has feet, but the two openings in the skirt for these, at front and at back, are a curious feature. Fragments from others were found in 1, 16, 40, 70, 72, the surface of 79–89, 101, and 116. All seem to have been painted, but their surfaces are too worn for designs to show. Professor Marinatos has already discussed at length the ritual significance of such figures in his publication of the very similar, but probably earlier, group from Gaze.⁶⁹ With their bell skirts and uplifted arms they seem to be a purely Cretan type of long Minoan ancestry.

DESIGNS

Designs have already been partially discussed in connexion with the shapes on which they occur. They fall into two groups, those that are carried out in the actual clay and those that are painted.

1. *Moulding, Incision, and Beading* (PLATE 12)

There is little to add concerning any of these. Moulding consists of plain ridges, bands, or festoons pinched up at intervals so as to resemble a rope, medallions, knobs, and circular depressions. It is nearly always structural, for ridges and bands serve to hide joins in the manufacture, medallions and knobs give strength to the widest parts, where vessels might get knocked, and depressions facilitate the joining on of handles and legs.

Incision never occurs directly on the sides (except where a metallic effect is desired, i.e. One-handled Jug 10 and Tankard 1), but is found on moulded bands, on the flat upper surface of rims, on tripod legs, and on a lattice-work stand from M 8. It consists of a series of parallel lines, either vertical, diagonal, cross-hatched, or in herring-bone form. There are also a few examples of stamped decoration, in designs such as rosettes and circles.

Heavy moulding and beading seems to be confined to the rims and bases of tankards and of

⁶⁵ Evans, *Prehistoric Tombs at Knossos* 96.

⁶⁶ *PM* iv. 145.

⁶⁷ As does an earlier example from Gournia, *PM* ii. 139.

⁶⁸ *PM* iv. 145.

⁶⁹ *AE* 1937, 286 and Alexiou's recent article in *Κρητικά Χρονικά* 12 (1958).

kalathoi of type 7. It was probably intended to imitate metal-work. Two sherds with moulded goats' or bulls' heads (PLATE 12*a*, third row left) are enigmatic and cannot even be attributed to any particular shape.

2. Painted Designs (FIGS. 21-26)

Painted designs group themselves into two main classes, the open style and the fringed style.⁷⁰ One or two sherds of true Protogeometric style were found, suggesting, along with the evidence of the architecture, metal-work, &c., that Karphi was contemporary with Protogeometric Knossos but deliberately uninfluenced by it.⁷¹ There are also some simple forms of painted

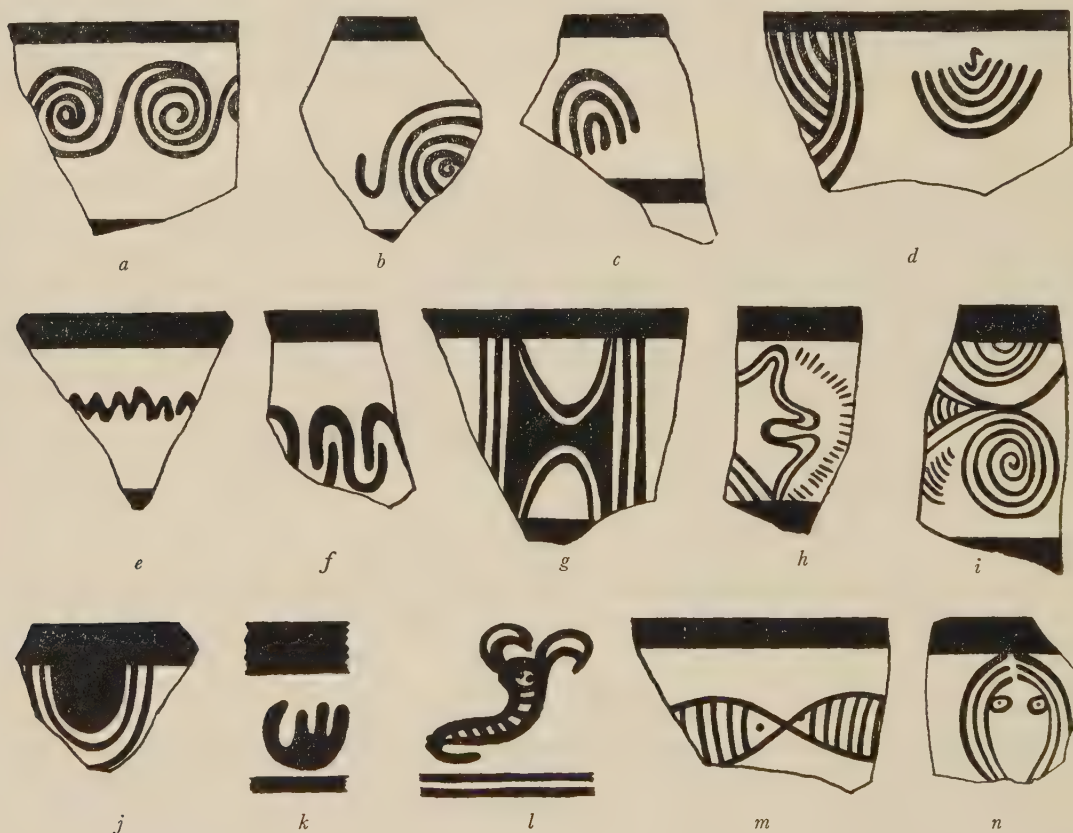


FIG. 21. PATTERNS ON CUPS AND BOWLS. From 147, 29, 147, 138, 38, 29, 100, 21, 38, 124, 100, 115, 61, 76.
SCALE 1:2

decoration, such as a wash covering the whole or part of the surface, which have already been dealt with in connexion with the shapes on which they occur.

The open style is generally found either on small bowls, where there is no room for elaboration, or on large coarse vessels, where the surface is too rough for minuteness of detail. The zone to be decorated is divided off by a line outlining the rim or neck and another where the side

⁷⁰ See p. 17, n. 38.

⁷¹ For the probable history of the period see *BSA* xxxvii. 196.

narrows towards the base. Within this there may be some attempt at a panelled arrangement, but more often the motives are continued without a break except where the handles occur. They are nearly always curvilinear. Wavy lines, sometimes resembling octopus tentacles, S-shaped quirks and more or less concentric half-circles are all common, but spirals of various sorts are even more frequent. These never interlock very symmetrically, but may be linked either vertically or horizontally, although they are most often separate, with the tail ending in a hook (FIG. 21*b*). The centre is seldom solid, but the outer line may be thicker than the inner ones. The scale pattern on the krater from 30 (PLATE 9*c*) is also paralleled on smaller vessels and should probably be taken in the present class, although on this particular example there is some quite different, but very badly preserved, design on the opposite side which seems to have more in common with the fringed style. Occasionally representational motives appear (FIG. 21*l-n*), but these are rare and look as though they had been executed rather for fun, because an abstract form suggested a live one, than with any intent to conventionalize.

The fringed style, which might be expected to have greater latitude, is in reality more restricted than the open one. The central motives number less than a dozen, but they are repeated with so many minor differences and such a variety of filling patterns that an effect of great diversity is produced. The main object of this style is that masses of solid colour should alternate with fringed and dotted details so that the depth, or consistency, of the design remains the same throughout. The space to be decorated is usually cut up into panels, so that the most characteristic examples occur on pyxides and tankards, where the shape lends itself to rectangular partition; but the triangles formed by the necks and handles of stirrup-jars were also often found suitable. On kraters and kylikes the patterns are mostly fringed, but there is less noticeable congestion. The principal motives consist of stylized natural objects. Flowers, sometimes degenerating into rosettes or scrolls, sprays, birds, octopods, double-axes, horns of consecration, and the so-called 'windmill' pattern, in which triangular sails appear to be revolving round disk-shaped centres, are repeated time and again. The filling decorations include, in various combinations, wavy bands, single or double scallop edges, spirals, ladder-like parallel lines with hatchings between, and, above all, the dots and fringes from which the name of the style has been derived.

These dots and fringes generally outline the whole or some part of all main motives, and occasionally they are so placed as to give the impression of a shadow thrown by the central object, but this is probably accidental. The bolder designs, such as the bird from 76, the double-axe and birds from 114, and the lilies from M 8 (FIGS. 25*a*, 24*a* 2, 26*f*), are effective enough, but often there is such a medley of unco-ordinated patterns that it looks as though the painter had only been trying to get in as much of his repertory as he possibly could on each single pot.

This style seems to have no direct ceramic antecedents. In many ways it is more reminiscent of the L.M. II Palace style than anything else,⁷² but the lapse of time between the two makes this comparison appear foolish. It occurs, always alongside the open style, at many sites in Crete, Rhodes, Cyprus, the Argolid, &c.,⁷³ but in Crete has so far been found in a greater variety of shapes than elsewhere, although this could be due to the fact that most of the non-Cretan specimens are from tombs. Pendlebury has suggested for it an Achaean origin and puts its introduction into Crete at about 1250 B.C.⁷⁴ Many of the examples from Karphi are on very un-Minoan shapes (pyxides, kraters, bulbous-handled kylikes, &c.), and must belong to the close of the period of occupation there, or not earlier than *c.* 1000. This wide distribution, both in space and in time, is hard to explain, particularly when such a distinctive system of decoration

⁷² Cf. *PM* iv. 295.

⁷³ Cf. *QDAP* v. 90, where Heurtley gives references to

vases in this style.

⁷⁴ *AC* 261 and *BSA* xxxvii. 196.



FIG. 22. PATTERNS ON TANKARDS (*a, b*), KYLIKES (*c-e*), JUG (*f*), STIRRUP-JARS (*g-l*). From 26, 79, 106, 101, M 4, 107, 47, 26, 121, 23, 116, M 16. SCALE 1: 2

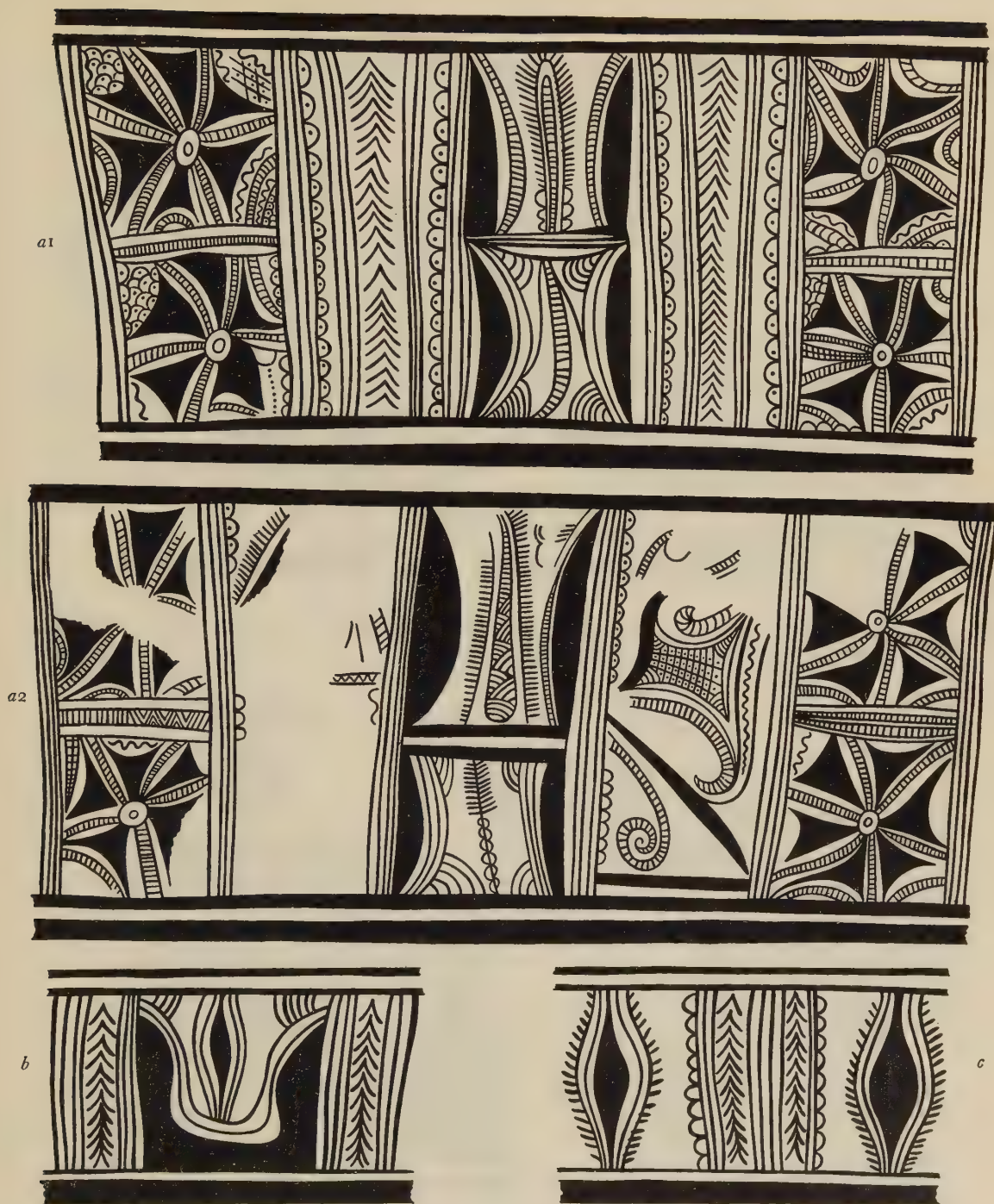


FIG. 23. PATTERNS ON PYXIDES. From 22, 14. SCALE 1:2

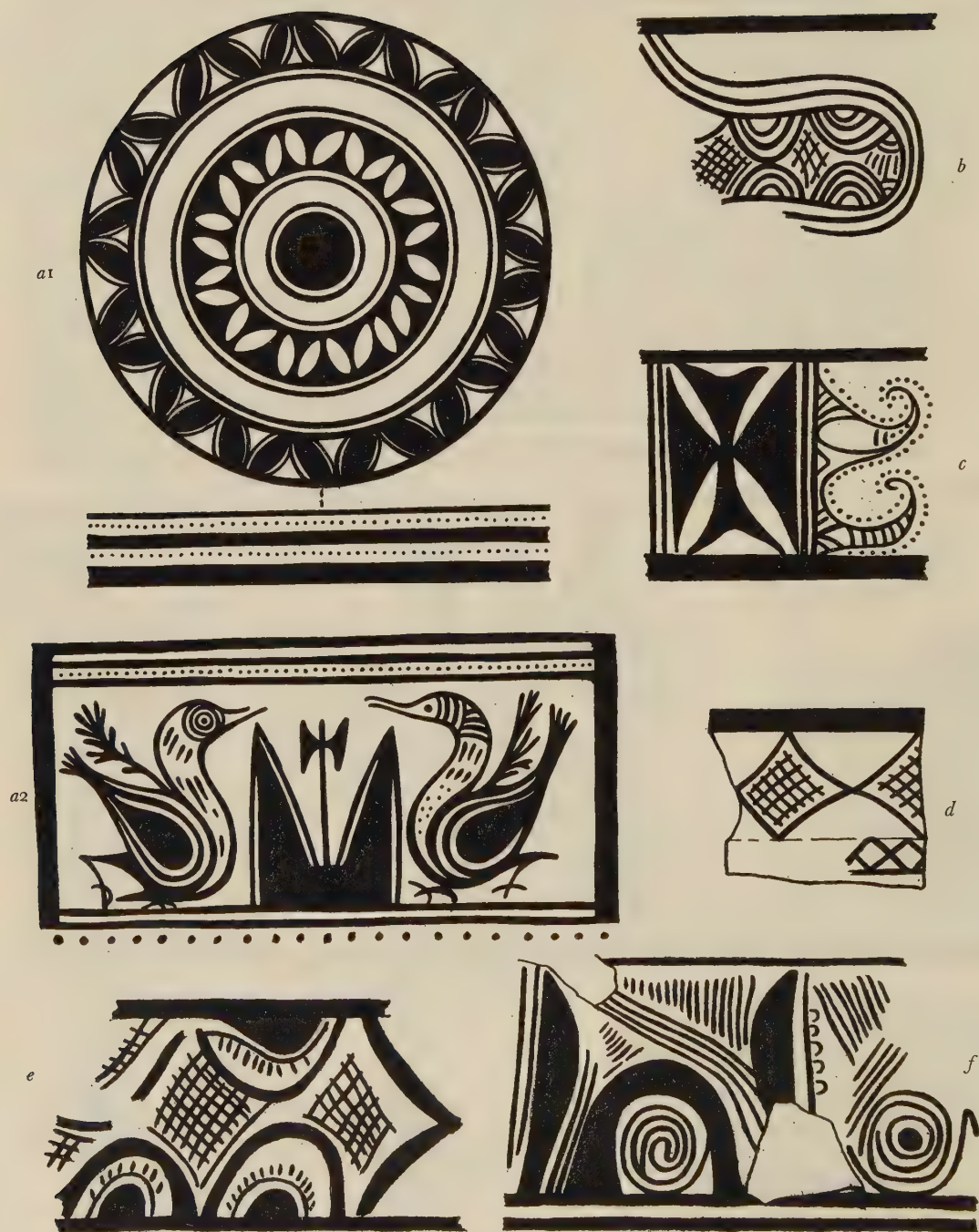


FIG. 24. PATTERNS ON PYXIDES. From 114, 147, 22, 143, 75, 134. SCALE 1:2



FIG. 25. PATTERNS ON KRATERS. From 76, 79, 124, 76, 77, 109, 62. SCALE 1:2

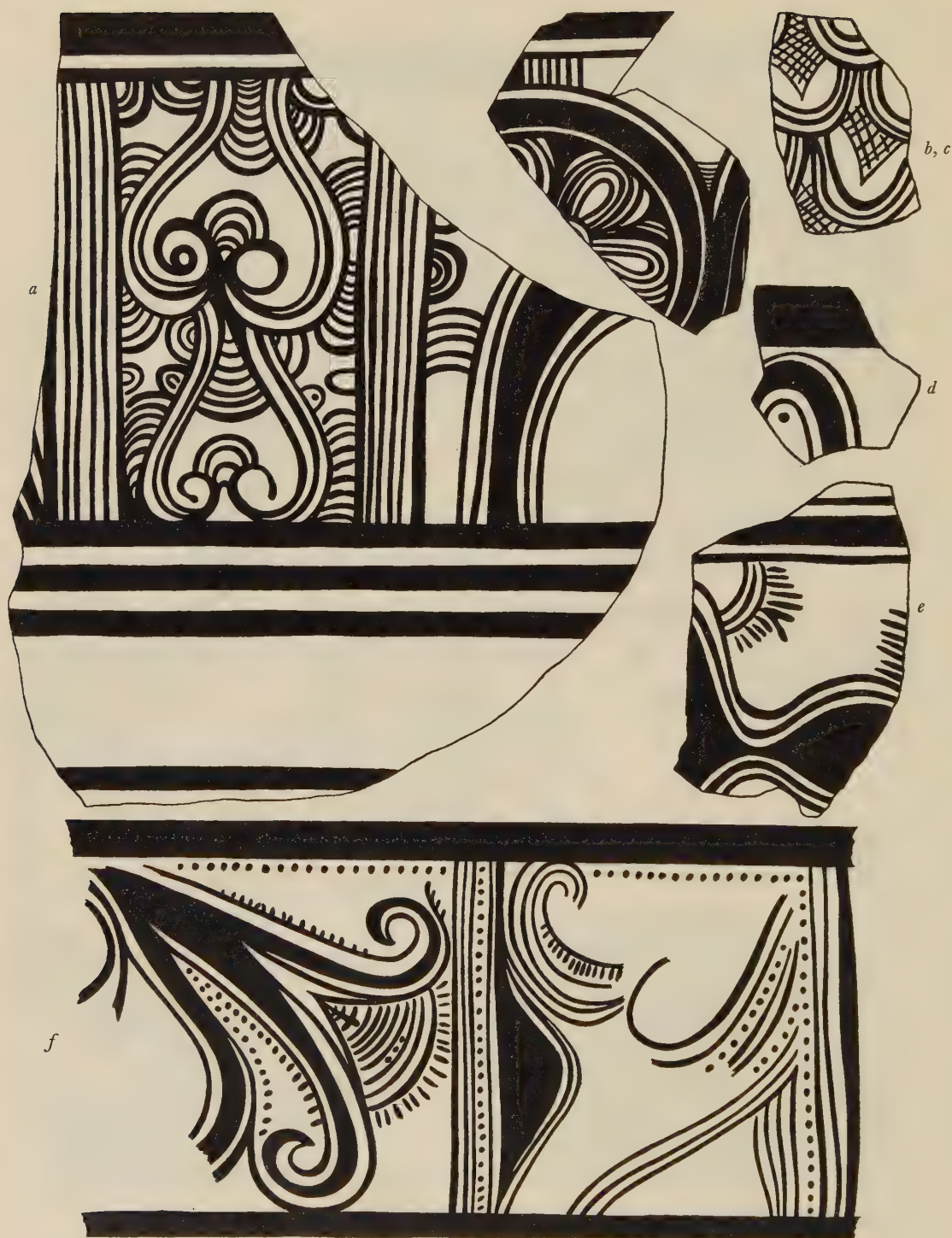


FIG. 26. PATTERNS ON KRATERS. From 28, 67, 79, M 8 (d-f). SCALE 1:2

always occurs only on *some* pots, unless it is supposed that the style was derived from something less perishable than pottery.

Evans has suggested that textile patterns were reproduced on pottery during M.M. I times,⁷⁵ and it is here submitted that the fringed style may have been copied from embroidery.⁷⁶ Whatever its place of origin (and on the mainland heavy embroideries on clothing, blankets, rugs, &c., would have been commoner than in the warmer climate of the islands), it is easy to imagine that when some evacuation of the old Minoan centres took place owing to invasion (and perhaps also to internal faction concerning the status of the invaders) the warmest, most imperishable, and most ornate coverings would have been taken along, as safeguards against the cold and reminders of ancient magnificence. At Karphi new ones would also have been made very soon, presumably on the old patterns, if the place was anything like as cold then as now. Possibly the most cherished of the originals and certainly copies of copies could easily have survived over the necessary number of years.⁷⁷ What more likely than that the pot-painters, lacking many of their customary models, should have turned to their grandmothers' handiwork for inspiration, particularly if there was traditional precedent for doing so?

The style itself also suggests embroidery. Secular motives, such as rosettes, crocus-like flowers in profile, birds, scale patterns, &c., have continued on Cretan embroideries almost to the present day, although religious ones, such as double-axes, horns of consecration, &c., have naturally altered. The manner of expressing both motives and fillings by an aggregation of thick and thin lines, curved hatchings, dots, fringes, and festoons along the edges, could, it is believed, be copied quite exactly by any competent embroiderer, using different stitches and knots for the various components. The frequency of panelled formations in itself suggests strips of woven material, while the covering of every available space, sometimes even with apparently meaningless doodles, is characteristic of decorative needlework in general.

Fashions naturally changed rather suddenly when more peaceful conditions made it possible for the population to lead a less rigorous existence. Exactly when this took place cannot be determined until the connexion between Karphi and the later, probably more stratified, site on the Papoura has been established by excavation.

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⁷⁵ *PM* iv. 100.

⁷⁶ Its apparent connexion with the L.M. II Palace style also looks less improbable from this angle. Evans suggests textile influence on the chequer pattern, *PM* iv. 348, and on a jar from the Royal Villa one can, if one chooses, practically see the stitches (*PM* ii, fig. 231). For what it is

worth, relations between Crete and the mainland were probably closer during L.M. II than at any other time; see *BSA* xxxvii. 196.

⁷⁷ Cf. the way in which embroidered towels and blankets are, even now, handed down in the female line from generation to generation under the dowry system.

THE CURRENCY OF *DENIERS TOURNOIS* IN FRANKISH GREECE¹

THE base silver *deniers* of the type from Tours which in the thirteenth century were the common currency of large parts of France² served as the model for the later coinage of Frankish Greece. From the mid-thirteenth century onwards, for more than a hundred years, *deniers tournois* were the standard coin of Attica, Boeotia, the Peloponnese, and some of the Aegean islands. They were struck in very large numbers by the princes of Achaia and the dukes of Athens, and in smaller quantities by the rulers of several other territories. Three examples are illustrated in FIG. 1 *d-f*, from which it can be seen that the design of all the coins was virtually identical,



FIG. 1. *Top row.* (a) Ninth-century prototype of the *denier tournois*. A coin of Louis I (814-40) with the design of a Christian temple and the legend *XPSTIANA RELIGIO*. (b) French *denier* of Tours, early thirteenth century. (c) *Denier* of Charles I of Anjou, count of Provence 1246-85, of the *tournois* type. *Bottom row.* (d) Frankish *denier tournois* of Guy II, duke of Athens (struck 1294-1308 at Thebes). (e) The same, of Philip of Taranto, prince of Achaia 1307-13, struck at Clarentzia. (f) The same, of John II Angelus Comnenus Ducas, Sebastocrator of Great Wallachia 1303-18, struck at Neopatras, probably before 1308.

except for the names of the issuing authorities and of the places of mintage. On one side was a cross, and on the other the so-called 'castle of Tours', really a degenerated version of the design of a ninth-century coin showing a Christian temple (see FIG. 1*a*). There is a long series of Achaian coins bearing the names of Prince William of Villehardouin, Charles I king of Naples, Charles II, Prince Florent, Isabel, Philip of Savoy, Philip of Taranto, Louis, Maud, John, and Robert.³ Their dates of issue can therefore be readily determined. Most of the Athenian coins are from the reigns of William and Guy II de la Roche.

All the coinages of Frankish Greece were described by Gustave Schlumberger in his *Numismatique de l'orient latin*. Although published in 1878, it is still the standard work, and it was based

¹ I am much indebted to Mrs. I. Varoukha-Khristodouloupoulou, the Curator of the Greek National Numismatic Collection, for the kindness with which she received me, and for her help in discussing the hoards of the Frankish period.

² For a description see T. N. Bisson, 'Coinages and royal

monetary policy in Languedoc during the reign of Saint Louis', *Speculum* xxxii (1957) 443 ff.

³ A list of the dates of the various princes who struck *deniers tournois* in Greece is appended to the catalogue of hoards at the end of the article.

on such thorough researches that it has been supplemented or corrected at very few points. Schlumberger made little attempt, however, to use the numismatic information which he had collected as evidence for monetary and economic history, nor have later scholars tried to do so. What is known from documentary sources about the use of coinage⁴ in thirteenth- and fourteenth-century Greece could be set out in a very short space, since it rests largely on three references from the Chronicle of the Morea, Sanudo, and Pegolotti. Neither the coins themselves nor the documents throw much light on the problems one would like to be able to resolve. What was the relative importance of the various mints? How long did the coins remain in circulation? How freely did they move from one part of Greece to another? For what kind of payments were they used? The answers to these and other questions can be given, if at all, only through a study of the hoards which have been discovered from time to time in various places in Greece, and which are mostly now in the Athens museum. Some of them are here published in detail for the first time. They include in varying proportions the types which Schlumberger listed and described; by comparing those proportions in different hoards, a good deal can be deduced about the monetary affairs of Frankish Greece. The first part of this article is devoted to a discussion of the proportions.

The coins in any one *tournois* hoard are a small sample of the currency which was in use at the time when the hoard was concealed. That they are a random sample, at any rate in certain significant respects, is the premiss upon which any conclusions about the currency must rest.⁵ There is no reason to think that the hoarding would have been selective, and the proportions are in fact so consistent among themselves that they could hardly have occurred other than by random hoarding. One *denier tournois* looks very much like another. Many of them were so indifferently struck that they have to be examined closely before the name of the prince who issued them can be read. The nominal value of all of them was the same, and it was so small, and the amount of silver in the coins was so little, that one cannot imagine that it was worth while, in day-to-day transactions, to do more than reject the most obviously worn pieces. The study of a hoard-series sometimes enables one to see that a particular hoard is unusual in its composition. It may, for example, consist of carefully selected pieces, in which case one would suppose that it was a savings-hoard. Again, it may consist very largely of a single issue, when there would be a number of possible explanations, among them that the coins had not been in general circulation since leaving the mint. The only candidates, among the hoards from Greece, for a special explanation are the Corinth find of 1934, about which a good deal will be said below, and the Delphi 1894 B hoard, which may perhaps have been a savings-hoard. An actual example will show the uniformity of the hoards, and will demonstrate that they are indeed reliable samples from which conclusions may safely be drawn. Philip of Taranto during his reign as prince of Achaia struck coins at two mints, Clarentzia and Lepanto. In the hoards they occur in the proportions shown in TABLE 1. There may be an element of coincidence in them, but the proportions are so strikingly regular that one feels quite confident in concluding that the Lepanto mint struck between 10 and, at the most, 20 per cent. as much coinage as that at Clarentzia over the years 1307-13.⁶

⁴ There are a good many more references to money, but one cannot safely base conclusions about the coinage on them, since some of them name only moneys of account, and others describe payments which may have been made in other coinages or in kind.

⁵ Even a random sample must, for statistical reasons, be of a sufficient size if the proportions which it gives are to be reliable. The same theory which I discussed in 'Statistische

Analyse bei der Auswertung von Münzfundmaterialen', *Jahrbuch für Numismatik und Geldgeschichte* ix (1958) 187 ff., can be applied to hoards.

⁶ Twenty per cent., which may seem an unnecessarily high upper limit, is suggested because of the greater occurrence of the Epirote coins in their local region, discussed below.

Since the earliest types of *tournois* are still to be found in hoards deposited late in the fourteenth century, and as they seem to occur in roughly the same proportions in all but the latest hoards, it does not look as though the old coins ceased to be used to any great extent. Three of the common types which can be attributed without any doubt are compared in TABLE 2, in order to

<i>Hoard</i>	<i>Mint of Clarentzia</i>	<i>Mint of Lepanto</i>
Delphi, 1929 . . .	100	10
Attica (?), 1951 . . .	100	13
Orion, 1959 . . .	100	14
Tritaea, 1933 . . .	100	14
Atalandhi, 1940 . . .	100	11
Patras, 1955 . . .	100	14
Elevisis, 1952 . . .	100	16

TABLE 1. Proportions of coins of Philip of Taranto from his two mints of Clarentzia and Lepanto (Schl. XIII, 26 only). The figures have been adjusted so that Clarentzia = 100 in each case.)

show how earlier and later coins occur in hoards of early and late deposit. The inconsistencies in the figures are partly the result of regional variations in the currency, discussed below. They do not reveal any trend, however, for the early type to be scarcer, or the late type to be commoner, in the hoards of late deposit. This suggests that during most of the fourteenth century there was in general hardly any wastage according to age from the *tournois* currency.

<i>Hoard</i>	<i>Deposit</i>	1280-7 (Thebes, XIII, 2-3)	1294-1307 (Lepanto, XIII, 20)	1307-13 (Clarentzia, XII, 21)
Delphi, 1929 . . .	1311?	30	36	34
Attica (?), 1951 . . .	1318-20	28	33	39
Orion, 1959 . . .	1320-5	31	26	43
Tritaea, 1933 . . .	1320-35	21	42	37
Atalandhi, 1940 . . .	1325-30	41	22	38
Delphi, 1894 B . . .	1325-40	34	27*	39
Delphi, 1894 Γ . . .	1339-44	33	30*	37
Patras, 1955 . . .	1343-55	27	35	38
Elevisis, 1952 . . .	1365-80	28	35	37
Delphi, 1894 A . . .	1400-20	32	36*	32

TABLE 2. Proportions of types of different dates of issue, in hoards of early and late deposit. (The three figures for each hoard add to 100. The figures marked * are estimates made by reducing the total for XIII, 20 and 26 by one-eighth.)

If coins, once they were issued, remained in circulation, then the age-structure of the hoards should give a good idea of the relative output of the mints over the years. The age-structure of the Orion hoard is illustrated in FIG. 2. Three features which are noticeable from the graph are that the volume of coinage falls off around 1310, well before the date of deposit: that there is a sudden and very large increase in the years 1316-18: and that the number of coins per year before 1280 is relatively very small. Leaving aside the first two, let us look at the third of these unexpected things. There are various possible reasons for the small numbers of early coins. After sixty years' use it might be that most of them were so worn that they would not be

hoarded. A comparison with earlier hoards shows that the proportion is, perhaps, somewhat low in the Orion find (see TABLE 3), but that it does not differ from the general run sufficiently to stand out on the available evidence. If the graph reflects the mint-output accurately, the straightforward explanation is that the volume of coinage struck in Frankish Greece increased ten- or twenty-fold very soon after 1280. Other possible reasons are that Schlumberger's date of 1250 for the beginning of the *tournois* coinage may be in error—as I think it is—or that there may

<i>Hoard</i>	<i>Deposit</i>	<i>Before 1278</i> (XII, 11-21)	<i>1289-1301</i> (XII, 18-19)
Delphi, 1929 . . .	1311?	35	100
Attica (?), 1951 . . .	1318-20	19	100
Orion, 1959 . . .	1320-5	25	100
Atalandhi, 1940 . . .	1325-30	33	100

TABLE 3. Proportions of the earliest Achaian *tournois*, relative to those of Isabel and Florent, in hoards of early deposit.

have been a recall of the coinage, so that only a few stray finds of earlier date remained in the currency. The latter is somewhat awkward to dismiss. Any such recall must presumably have been before about 1280. The first four substantive Achaian issues, from the years before 1289, occur in quantities large enough to be statistically at all reliable in only five hoards among those so far published. Their numbers, as well as the proportions, are set out in TABLE 4, so as to

Hoard	Deposit	William		Charles I XII, 16	Charles II XII, 17
		XII, 11	XII, 12		
Quantities					
Xirokhorī, 1957 . . .	1285-7	152	127	766	715
Delphi, 1929 . . .	1311?	13	8	2	19
Orion, 1959 . . .	1320-5	7	6	2	13
Delphi, 1894 B . . .	1325-40	3	0	13	90
Delphi, 1894 A . . .	1400-20	39		10	41
Proportions					
Xirokhorī, 1957 . . .	1285-7	21	18	107	100
Delphi, 1929 . . .	1311?	68	42	11	100
Orion, 1959 . . .	1320-5	54	46	15	100
Delphi, 1894 B . . .	1325-40	3	0	14	100
Delphi, 1894 A . . .	1400-20	95		24	100

TABLE 4. Quantities and proportions of the first four issues of Achaian *tournois*. (Schl. XII, 17 = 100.)

provide an example where the reader can see the kind of evidence on which the tables throughout the article are based. The coins attributed to Charles I, which are regularly much fewer than those of Charles II, outnumber them in the Xirokhorī find, where, also, Charles II's coins are more numerous, compared with those of William, than they normally are. The obvious explanation is that this hoard, while containing a preponderance of recent issues, was concealed before many of Charles II's coins were current, that is, early in his reign. The virtual absence of early coins from Delphi 1894 B suggests that it may have been a savings-hoard consisting of good coins carefully selected; at any rate, Delphi 1929, Orion, and Delphi 1894 A seem to be uniform enough for a special explanation to be needed for Delphi 1894 B. If those three hoards are accepted as typical, one can say that the total output of coinage under William was about the

same as that under Charles II, while Charles I's issues were between 10 and 25 per cent. as great in quantity. As Charles II's reign was comparatively short, there was thus an increase in mint-output from about 1285. (But see the notes on the types: should the attribution of XII, 16 and 17 be regarded as certain?)

If these early coins were strays which had escaped a general recall of the coinage, I doubt whether the proportions would tally so well. Nothing final can be said until some more hoards deposited before 1300 have been discovered and published, but the available evidence already suggests that there was no recall. The beginning of the Athenian *tournois* issues, therefore, seems to have coincided with a large increase in the volume of the coinage of Frankish Greece.

The column-graph in FIG. 2 represents an even more striking rise in mint-output during the sole reign of Maud, which lasted only for twenty months (July 1316–March 1318). It is reason-

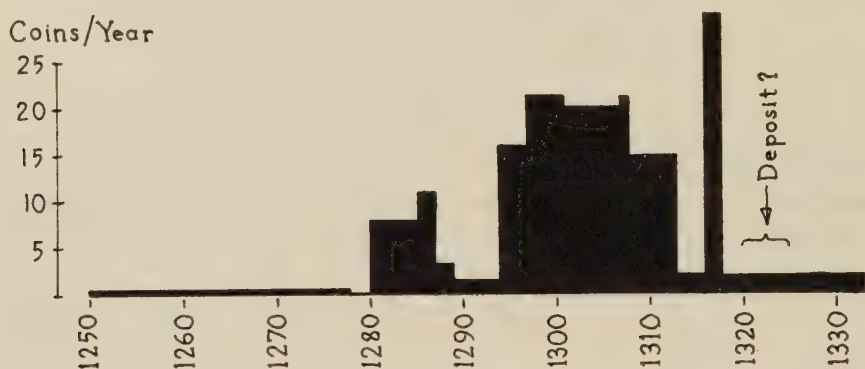


FIG. 2. COLUMN-GRAPH SHOWING THE AGE-STRUCTURE OF THE ORION HOARD ACCORDING TO SCHLUMBERGER'S ATTRIBUTIONS. (Note that some of these are questioned below.)

able to suppose that the Orion hoard was deposited quite early in John's reign, so that the large number of Maud's coins might be no more than a preponderance of recent issues. In hoards which were certainly deposited many years later, however, the same unexpected proportions are found. There is no known reason why the coinage of this short reign should be so abundant, and the graph in fact provides an argument for attributing some of Maud's coins to her joint reign with Louis of Burgundy (1313–16), and others to the first three years of the reign of John, before Maud was finally deprived of her fief. If the coinage in the name of Maud was struck for eight years, the proportions in which it occurs in the hoards appear more reasonable. They fit in better, also, with the pattern of a decline in the output of coinage in the second decade of the fourteenth century.

Coins in the name of Isabel, like those of Maud, are commoner than would be expected from the length of her sole reign; it seems possible that they, similarly, were struck during much or all of the period 1289–1307.

Quite the most intriguing fact revealed by a comparative study of the hoards is that coins issued at the mint of Lepanto in the years around 1300 could still be much commoner in the currency of the near-by region than they were elsewhere, forty years later. The regional circulation of coinage often provides interesting clues to the purpose for which it was used, especially when the output of a number of different mints can be distinguished. Whereas, broadly speaking, the *tournois* of Athens, Achaia, and Epirus circulated freely in each other's territories throughout the whole of Greece, they did not, even over a long period, become completely

intermingled in the currency. In the Patras hoard, for example, the coins of the mint of Lepanto (which is only a short distance away, across the Gulf of Corinth) are unusually heavily represented (see TABLE 5). If they were still concentrated in their region of issue after forty years' circulation, how much the more so must they not have been shortly after they were struck? The figure of 50 for the Epirote coins in the small Tritaea hoard helps to confirm that the proportion in the Patras hoard is not accidentally large. These two proportions may be contrasted with the figures of 26 and 21 in the provenances farthest from Lepanto. Similarly, the two early hoards from Delphi, deposited only a few years after the issue of the type, show a low proportion. Here the explanation is that the coins had not had time to circulate beyond their region of issue in large numbers. The Delphi 1894 B hoard, in this as in other respects, is somewhat puzzling.

The relative proportions of Athenian and Achaian coins vary, as can be seen by a study of TABLE 5, almost entirely according to the time-interval between the date of issue and the date

<i>Hoard</i>	<i>Deposit</i>	<i>Clarentzia</i> 1278-1307 (XII, 16-20)	<i>Lepanto</i> 1294-1307 (XIII, 20)	<i>Thebes</i> 1280-1308 (XIII, 2-9)
<i>South-western area</i>				
Tritaea, 1933 . . .	1320-35	69	50	100
Patras, 1955 . . .	1343-55	86	59	100
<i>Central area</i>				
Delphi, 1933 . . .	1301-5	44	22	100
Delphi, 1929 . . .	1311?	52	29	100
Delphi, 1894 B . . .	1325-40	89	31*	100
Delphi, 1894 Γ . . .	1339-44	71	36*	100
Delphi, 1894 A . . .	1400-20	76	43*	100
<i>North-eastern area</i>				
Orion, 1959 . . .	1320-5	66	26	100
Atalandhi, 1940 . . .	1325-30	71	21	100

TABLE 5. Proportions of the coins of the three chief mints from the years 1278/80-1307/8 in hoards from different regions. (Thebes = 100. The sign * indicates an approximation, assuming that seven-eighths of the Epirote coins of Philip are of type XIII, 20.)

of deposit. In the earliest hoards in the list, namely those from Delphi, which was outside Achaian territory, the figures for the Clarentzia mint are at their lowest. In later hoards, the distance from Clarentzia does not seem to be of much account. Thus the proportion is higher in the distant Orion hoard than in the roughly contemporary Attica find, and again it is higher in the distant Atalandhi hoard than in the contemporary Tritaea hoard.

The beginning and end of the reigns of the rulers of Achaia and Athens coincide quite conveniently, so that it is possible to compare the output of the Athenian and Achaian mints over almost exactly the same period (Athens 1280-1308; Achaia 1278-1307). The more equal proportions of the later hoards, which were drawn from a currency that had had time to become more fully intermingled, are the better guide. If we say that Clarentzia was striking 70-80 coins for every 100 from Thebes, we shall probably not be far wrong.

The output of each of the mints did not, however, remain steady throughout these three decades. If the figures are broken down further, it can be seen that between 1278/80 and 1287 the dominance of the Athenian mint was much greater than over the period as a whole; from 1287 to 1294 it apparently almost ceased production; and from 1294 to 1318 its output was in keeping with the average.

Even the hoards from the Peloponnese do not show proportions rising significantly above the figure of 70–80 which has been mentioned. There is one exception, the Xirokhorori find. It was concealed not long after 1285, that is, at the time when the Athenian mint was striking perhaps as much as three times as much money as the Achaian. Yet for 100 Athenian coins of 1280–7 the hoard contains 234 Achaian of the years 1278–85. It seems that the coinage issued at Thebes had not had time to penetrate very much into the western Peloponnese.

How many years was it, one wonders, after its date of issue, that an Athenian coinage assumed roughly the same proportions in Achaia as existed between the outputs of the two mints? If one could follow the movements of the coins struck in the year 1300, what percentage of the coins from Clarentzia would have found their way to Attica in twelve months? in five years? There is not enough suitable evidence to be able to say very much. Epirote coins at Delphi had reached about the same proportion after ten years' circulation as they had on the north-eastern coasts after twenty-five years (TABLE 5). The proportion of Achaian coins in the currency of central Greece seems still to have been increasing after they had been in circulation for twenty years. Several more large hoards of early deposit from localities appropriate to the problem will have to be published before it will be possible to estimate the rate of circulation at all accurately. Perhaps something of the order of 20 per cent. of the currency of Achaia would be carried into Athenian territory, and vice versa, in ten years.⁷

The coins of the minor mints, Neopatras, Arta, Tinos, and Chios, which normally together make up less than 2 per cent. of a hoard, were quite probably commoner than that in their respective regions of issue. Even so, their role in the monetary history of Frankish Greece was obviously a small one. There is at present no way of guessing how much of the currency of the outlying regions was supplied by the local mints. The discovery of a large *tournois* hoard, deposited in the second or third decade of the fourteenth century, in Thessaly, or north-western Epirus, or the Cyclades, or the coasts of Asia Minor, could hardly fail to add some interesting information to our knowledge of the Frankish currency.

At Neopatras, the most active of the minor mints, coins were struck for John II of Great Wallachia. He began his reign, in 1303, as a child, and was placed under the protection of Guy II of Athens, whose own interest in a flourishing coinage may account for the volume of the Wallachian copies. It seems likely that the death of Guy in 1308 and the Catalan Company's raid of 1309 brought their issue to an end. TABLE 6 shows the proportions of coins of Neopatras to the contemporary issues of Guy II (1294–1308) in various hoards. The figures suggest that the volume of John's coinage was, roughly, between 2 and 5 per cent. of the Athenian. If its issue was confined to the years 1303–8, the output of the mint per annum must have been at least 5 per cent. of the Athenian amount.

The mint of Tinos, which was working in the same period, seems, by comparison, to have issued far less coinage.

A hoard of unknown provenance, discovered in 1858, yielded Lambros some Chiote *tournois*, together with the then unique coin of Damala.⁸ No other hoard is known in which more than

⁷ The following rough calculation will show how a certain rate of regional circulation would be reflected in the proportions of the types in different areas. Assuming that the mints in territories A and B issued similar quantities of coinage, 100a and 100b, and that the rate of regional exchange was 20 per cent. of the currency each ten years, the subsequent occurrence of the coinage of that particular date would be: after 10 years, in territory A, 80a+20b, in territory B, 20a+80b. In the next 10 years the process of mingling would be slower, since the coinage moving

from A to B would be 16a plus 4b, and vice versa. Thus, after 20 years, A = 68a+32b, B = 32a+68b. After 30 years, A = 61a+39b, B = 39a+61b. After 40 years, A = 56a+44b, B = 44a+56b. These figures, although they are very much of a simplification, draw attention to the differences which one should expect between hoards deposited shortly, and those deposited a long time, after the issue of the coins they contain.

⁸ See P. Lambros, *Mélanges de Numismatique* ii (1877) 246 ff., and Schlumberger, under the appropriate types.

one Chiote coin was present, so that it is a matter for regret that the 1858 hoard was not properly published. It may simply have been a very large hoard similar in composition to those from Orion and Atalandhi, but it seems more likely that it was of an eastern Aegean provenance, and was drawn from a currency in which Chiote coins formed an appreciable proportion. The evidence from the find is so vague that it would be considered worthless were it not the best that there is.⁹

There were four coins of the mint of Arta in the Atalandhi hoard. The large deposits of Delphi 1894 B and A each contained only one similar piece, while there were two in the Patras hoard. Thus, there was an unusually high proportion of the type in the Atalandhi find. If the discovery of another north-eastern hoard brought more coins of Arta to light, the numismatic evidence would point to trade along a route between Arta and Thessaly.

<i>Hoard</i>	<i>Deposit</i>	<i>Neopatras</i> (XIII, 17-19)	<i>Tinos</i> (XIII, 29)
Delphi, 1929 . . .	1311	1.6	..
Attica (?), 1951 . . .	1318-20	4.7	..
Attica, 1950 . . .	1318-25	(20)	..
Orion, 1959 . . .	1320-5	1.7	..
Delphi, 1894 B . . .	1325-40	2.5	0.2
Delphi, 1894 Γ . . .	1339-44	2.1	..
Patras, 1955 . . .	1343-55	(8.3)	(8.3)
Eleusis, 1952 . . .	1365-80	4.3	1.4
Delphi, 1894 A . . .	1400-20	2.0	..

TABLE 6. Proportions of coins of Neopatras and Tinos to those of Guy II (XIII, 9 = 100) in hoards of various dates. (The figures in brackets are based on quantities which are too small to be reliable.)

The battle of the river Kifissos in 1311 brought to an end the Frankish coinage of the duchy of Athens, and marked the beginning of the decline in the currency of *deniers tournois* in the whole of Greece. Although that decline is an interesting topic for study, the problems to be resolved in the first place are those of the period before 1311, when the monetary system was supplying the needs of a prosperous economy in a secure state, and when as many as three large mints were at work. Unfortunately, the distribution of the evidence does not match that of the interest, since almost all the hoards come from the fourteenth century, and provide only retrospective evidence about the earlier period. The importance of the Delphi hoards and, even more, of the Xirokhoris hoard arises from their early date of deposit. They are early, however, only in relation to the other finds. The Xirokhoris hoard was not concealed until *tournois* had been in circulation for at least twenty years.

The origin of the *tournois* coinage and its relation to the early issues in other styles are the most important, and difficult, two problems in the monetary history of Frankish Greece. Schlumberger submitted without reservation that *tournois* were first struck in Achaia in 1250 as a result of an audience which William of Villehardouin had with King Louis IX in Cyprus in 1249; the coinages in other styles, he said, were struck doubtless before that date. This view needs to be re-examined in some detail, since it involves a number of difficulties which Schlumberger did not take sufficiently into account.

The text which he accepted as crucial comes from Marin Sanudo's *Istoria del regno di Romania*, where it is recorded that William sought and obtained permission to issue coinage, with the

⁹ A similar shred of evidence for the circulation of later Chiote coins (not *tournois*) is provided by the parcels auctioned

in the Hoffmann sale (*Collection H. Hoffmann: Médailles. Drouot, May 11th, 1898, lots 2826 ff.*).

following words: 'Signor Sir, tu sei maggior Signor di me, e poi condur Gente dove vuoi e quanta vuoi senza denari: io non posso far così.'¹⁰ William's request of the right to strike his own coins (Achaia was certainly not without a currency of foreign coins after the conquest and before the autonomous issues began) was made on the grounds of his need to pay his military forces. Hopf concluded from the text, logically enough, that all the Achaian coinage was struck after 1250. Schlumberger's interpretation, which was that the coins not in the *tournois* style were struck before 1250, seems inconsistent, since William's argument would have been very disingenuous if he were already issuing coinage.

Sanudo was writing about an incident which had happened sixty or seventy years before. It is likely that he may have had good sources of information, even if he was not working from a document giving a contemporary verbatim report by an eyewitness, and in any case one should never dismiss puzzling evidence without good reason. On the other hand, even if William secured the king's permission in 1249 to strike coinage, he may not necessarily have used the arguments which Sanudo sets down, and even if he did they may not have expressed all the advantages of a coinage as the prince saw them, or as they in fact were. For example, it seems clear that the Frankish coinage in general was used mainly for purposes of commerce, rather than for paying the military forces.

Medieval coinage provides a good many instances of two authorities, whose territories were adjacent to each other, issuing coins very similar in fabric, value, and design. Sometimes the copying of a type led to resentment, and a document may have survived through which one authority makes a complaint, or seeks to limit the circulation of the rival coinage or to ensure that its intrinsic value is maintained at a certain standard. At other times a jointly issued coinage resulted from an agreement between the authorities, which may be attested by the survival of a written reference, or which may be known only from the evidence of the coins.¹¹ It is a not uncommon experience in numismatic study to realize that a parallel coinage has been 'sitting', unobserved, in front of one's eyes: thus, for example, the significance of the obvious parallels between the Achaian and Athenian coinages, about which unfortunately no surviving document comments, has escaped consideration in the past. As well as *deniers tournois*, both series include coins modelled on Genoese *denari* with a gateway as their type. Whether or not the Frankish parallel coinages were authorized by a formal agreement, any problem presented by the Achaian series obviously ought to be studied in the light of the Athenian coinage as well.

The Athenian coinage in what may for convenience be called the 'Italian' style is more varied than the comparable series from Achaia. As well as the 'Genoese Gateway' type, it includes others which show a fleur-de-lis, a monogram, a castle, or the de la Roche arms. Most of these coins are of copper, unlike the *tournois*, which are almost always of billon (base silver). They were perhaps all of the same nominal value, but it is not known how many of them went to a *denier tournois*.

It is certain that coins in the 'Italian' style were issued in the territory of Athens, if not in Achaia, well after 1250, and it is also certain, leaving aside Sanudo's statement, that such Athenian coins were struck after the beginning of the *tournois* coinage in Achaia. Before his visit to France in 1259-60, Guy I (1225-63) styled himself *megaskyr* of Athens, but afterwards duke. The coins which have G.DNS (*dominus*) and G.DVX in their legends must have been issued before and after 1260 respectively. Guy II, who became duke as a child, was known as Guiot. The

¹⁰ M. Sanudo, *Istoria del regno di romania*, ed. K. Hopf, in *Chroniques gréco-romaines inédites ou peu connues* (1870) 102.

¹¹ e.g. Luschin's recovery of the *Konventionsmünzung* at Ptuj; see A. Luschin von Ebengreuth, 'Friesacher Pfennige.

Beiträge zu ihrer Münzgeschichte und zur Kenntnis ihrer Gepräge', *Numismatische Zeitschrift* 1922, 89 ff., and 1923, 33 ff.

coin in the 'Italian' style with *GVOT* in the legend (there is also a rare *tournois* type with the same name) doubtless belongs to the years of his minority (1287-94). There was never much doubt that the Achaian *tournois* inscribed *G.PRINCEPS* were struck before 1278, and the Xirokhoron hoard makes the dating quite certain. The same hoard makes the dating of the Athenian *tournois* with the legend *G.DVX* to 1280-7 equally indisputable. In the duchy of Athens, then, 'Italian' and *tournois* coinages were being struck at the same time, and unless their circulation was very limited, which is improbable, *tournois* and 'Italian' coins must have been in use side by side in parts at any rate of Achaia. The Achaian issue of the 'Genoese Gateway' type was found in unexpectedly large numbers during the American excavations of Acrocorinth. Bellinger associated the fact with the building and repairs which William (1246-78) carried out on Acrocorinth, and suggested an attribution of the type to his reign on those grounds.¹² This piece of evidence suggests that the type should probably be dated to after rather than before 1250. Enough has been said to indicate that the two main kinds of coinage were not straightforwardly successive, as Schlumberger thought.

Only once have coins in the 'Italian' style been recorded from a Frankish *tournois* hoard, and then there were merely two among 2,500 coins in a fourteenth-century hoard (Delphi 1894 B); nor has a hoard of 'Italian'-style coins ever been published. They are not as rare, however, as the evidence of the hoards might mislead one to suppose, for among the many stray finds in the American excavations at Corinth and Athens, they easily outnumber the *deniers tournois*. The vast majority of the tens of thousands of coins of all periods which have been discovered there, nearly all one by one, is made up of pieces of small value. When someone dropped a gold or silver coin, he went on looking for it until he found it: if a petty coin was dropped, it seems that it was not always thought to be worth a protracted search. The high proportion of coins in the 'Italian' style among the stray finds, and their absence from the hoards, shows that they were used as a petty coinage.

The currency of Frankish Greece during most of the second half of the thirteenth century probably consisted of a standard coinage of billon with a petty coinage of copper in use alongside it. The copper coinage may have remained in use for many years after it ceased to be struck, as the two coins in Delphi 1894 B must have done. One may doubt whether there was a time before the introduction of the Achaian *tournois* when the little copper pieces were the standard coinage.

It may turn out that the lack of evidence from the years 1250-85 is not complete, for there is one hoard, discovered in Corinth in May 1934, which was deposited some years after 1253. It consisted largely of French *deniers tournois*, together with a few English and Venetian coins, and one gold *nomisma* of the empire of Nicaea. On publication, it was described as a crusader's hoard. Half a dozen crusading hoards are known from the Balkans. They may be characterized by saying that each deposit is recognizably a sum of money put together at some place in western Europe, and carried more or less intact to the East. Thus, for example, a hoard discovered (again) in Corinth, in 1907, consisting of 119 coins of Clermont and one of Le Puy, together with one Byzantine *nomisma*,¹³ obviously was the money of a crusader whose home was in or near Clermont; one may even go on to guess that at the beginning of his journey he made his petitions to our Lady of Le Puy, and kept a *maille du Puy* as a souvenir of the pilgrimage.¹⁴ The currency of France in the 1250's and 1260's was in a state of rapid change, and it is merely unfortunate that if the Corinth 1934 hoard had been put together at some particular place in

¹² See *Corinth* iii/1: *Acrocorinth* . . . 1926, 66 ff., by A. R. Bellinger.

¹³ See *Corinth Reports VI: Coins, 1896-1929*, by K. M.

Edwards, 1932.

¹⁴ On the dispersal of the *maille du Puy* as a souvenir of pilgrimages see Blanchet-Dieudonné iv. 15, 246.

France, there would be less chance of recognizing the fact than if its deposit had been fifty or a hundred years earlier.

It seems possible that the Corinth find was not a crusader's hoard, but was, in fact, a sum of money intended for local currency. While any find which can be associated with the Crusades is of lively interest, the Corinth hoard would be of much more significance if it could be shown not to be so, for it would suggest that the currency of Frankish *deniers tournois* replaced or was supplemented by an earlier currency of French *denier tournois*. If the coins were shown to be a sum drawn from the local currency, the hoard would virtually prove that Frankish *tournois* were not yet current at some date after 1253 when the hoard was concealed. Clearly it will be important to demonstrate the character of the hoard as fully as possible; at present, the two explanations for it which seem most likely are that the money was drawn from the local currency, or that it had recently been brought to Greece by a merchant or traveller from Provence. The presence of Venetian and Nicaean coins favours the former, but until at least one more hoard from the 1250's or 1260's has come to light in Greece, nothing conclusive can be said. There are, in the meantime, two arguments which suggest that the hoard of 1934 may well have been destined to be added to the currency of Corinth, even if it was not drawn from it. (1) French *tournois* occur in very small proportions in some of the Greek hoards. They made up 1.8 per cent. of the Xirokhoris hoard, 1.4 per cent. of the Attica 1951 hoard, 0.2 per cent. of the Orion hoard, and 0.3 per cent. of the Delphi 1894 B hoard. On the other hand, similar coins have been found at Corinth in very much larger proportions. Over the years 1896-1939, 141 stray finds of the French types listed in TABLE 7 were discovered, while the Frankish *tournois* amounted to only twice as many.¹⁵ The early Frankish *tournois* are relatively commoner among the stray finds than they are in the hoards. This is no doubt partly because the chances of a coin's being lost are proportional, *inter alia*, to the length of time for which it remained in circulation; it has already been shown that coins did not fall out of use to any great extent. This factor, it will be realized, may completely dominate the pattern of proportions among a series of stray finds. Although the quantity of French *tournois* from the Corinth finds may, therefore, give an exaggerated impression of their place in the currency, it suggests strongly that at some time they were commoner than one would have supposed from the Frankish hoards. (2) Some of the stray finds are coins which are known to have been struck after 1251, and others are only a little earlier. Many of the coins of Louis IX, which are not easy to date exactly,¹⁶ are probably also from the same time, so that a fair proportion of the French *tournois* cannot have been brought to Greece until after the middle of the century, and must have been current there in the 1250's or later.

The single coin of Philippe III among the French *tournois* in the Xirokhoris hoard shows that the French coins were still finding their way to Greece after 1270, but also that the movement had largely come to an end by that date. The eight French coins in the Delphi 1894 B hoard, deposited after c. 1325, were all struck before about 1270.

The unexpectedly high proportion of Provençal coins in the same hoard and in the Corinth hoard and stray finds suggests that some quite permanent connexion between Provence and Greece may have played a part in Frankish monetary history. In the large French hoards of Saint-Clair-sur-Elle¹⁷ and Sierck,¹⁸ the proportions derived from which are in reasonably close

¹⁵ Because of the summary form in which the finds were published, it is not possible to give complete figures. Excluding the *tournois* of William of Achaia, but including, no doubt, some non-*tournois* coins from Athens, there were 299.

¹⁶ Coins with TVRONVS CIVIS were probably struck late in the reign of Louis IX (Blanchet-Dieudonné ii. 229). In any case, the hoard has not yet been published in detail.

¹⁷ A. Dieudonné, *Revue numismatique* 1908, 499 ff.

¹⁸ E. Gariel, *Mélanges de numismatique* iii (1882) 80 ff., and E. Caron, *ibid.* 240 ff. The quantities of the royal types were given in kilogrammes, so that the figures which I have given are only approximate. Nor have I attempted to correct any attributions in the light of subsequent research, in either this or the Saint-Clair hoard.

agreement with each other, Provençal coins made up less than 2 per cent. of the total, among the types listed in TABLE 7. By contrast, the figures for the three Greek sources are all over 8 per cent. Charles I of Anjou, count of Provence, was also prince of Achaia, from 1278 to 1285. Both in Provence and in Achaia he struck *deniers tournois*. The administrative link between the two territories, which no doubt occasioned various official journeys and may have stimulated trade, is sufficient to explain the occurrence of Provençal currency in Greece.

Conclusions of wider significance spring to mind. By the treaty of Viterbo in 1267 William of Villehardouin willingly accepted Angevin overlordship of Achaia. Might not the Achaian *tournois* which bear his name have been issued only after that date? Were the coins inscribed G. PRINCE.ACH, for example, modelled not on those of Louis IX but on the Provençal coins reading K.COMES.P.? If the beginning of the Achaian *tournois* coinage could be placed as late as 1267, several aspects of the numismatic evidence which on Schlumberger's dating seem rather

<i>French (royal and feudal) tournois types</i>	<i>Corinth</i> 1934	<i>Corinth</i> <i>finds,</i> 1896-1939	<i>Xirokhori</i> 1957	<i>Saint-Clair</i> (1257-)	<i>Sierck</i> (c. 1325)
Tours, late XII-early XIII c.	18	22	..	16	22
Philippe II, 1180-1223	8	..	..	5	8
Louis VIII and IX, 1223-70	63	64	17	77	60
Philippe III, 1270-85	..	..	2	..	9
{ Charles of Anjou, count of Provence, 1246-85	2.4	9	..	0.5	0.7
{ Raimond VII, marquis of Provence, 1222-49	..	..	60	..	..
{ Alphonse, marquis of Provence, 1249-71	6	2.8	..	1.1	1.1
— count of Toulouse	0.5	..	17	0.1	0.5
— count of Riom	1.4	..	..	0.3	0.5
— count of Poitou	0.5	2.1	7	0.1	0.2
	100	100	100	100	100
	(369)	(141)	(42)	(1853)	(c. 13,000)

TABLE 7. Proportions of French *deniers tournois* from the Corinth 1934 hoard and from various other sources. (The figures in brackets in the bottom row are the numbers of coins on which the proportions are based.)

unsatisfactory or unexpected would fit better into place. The apparently very low output per annum of the Clarentzia mint under William would be increased by the altered attribution. The interval before the duchy of Athens began to copy the Achaian type would be lessened. The lack of early hoards would be explained, as would the use of French *tournois* up to c. 1270.

The treaty of Viterbo, by which Achaia became an Angevin fief, draws attention to another puzzling feature of the anecdote from Sanudo's *Istoria*. William is represented as asking his feudal overlord for a grant of the right to strike coinage. He held his fief of Achaia, however, not from the king of France, but from the Latin emperor of Constantinople: why should he have made his request to King Louis?

There is, until more hoards are discovered and published, a lack of conclusive evidence about the origin and early history of the *deniers tournois* in Greece. Sanudo's narrative does not command confidence, and all the numismatic evidence there is points to a later date. The treaty of Viterbo seems a very plausible occasion; I submit, provisionally, that the *tournois* coinage began soon after that date. On this view, Sanudo was in error. His anecdote may originally have been intended to explain the similarity between Frankish coins and the very common *tournois* of Louis IX. The memory of that king's monetary reforms may have lent some colour to the confusion.

The first clue about the economic background to the currency of *deniers tournois* in Frankish Greece is to be found from the stray discoveries at Corinth and Athens. Their proportions are

set out in TABLE 8. In the light of the hoard-evidence, which is fairly consistent no matter what the provenance of the hoard, the stray finds indicate a remarkably great difference between the currency of the two towns. In Athens, Athenian *tournois* far outnumber the Achaian, while in Corinth the position is reversed, and it is Achaian coins which are the more plentiful. In order to contrast the evidence of the hoards and stray finds more conveniently, TABLE 9 has been prepared, in which the proportions in rows (c) and (g) of TABLE 8 are adjusted to compare as far

	Corinth finds, 1896-1939	Athens finds, 1931-49
<i>Achaian coins</i>		
(a) Charles I and II	19	6
(b) Florent, Isabel, and Philip of Savoy	30	11
(c) TOTAL Achaia 1278-1307	49	17
(d) Philip of Taranto, Maud and John	10	8
<i>Athenian coins</i>		
(e) William	? 24	8
(f) Guy II	17	67
(g) TOTAL Athens 1280-1308	? 41	75
	100 (288)	100 (263)

TABLE 8. Proportions of *tournois* of Achaia and Athens among the stray finds from Corinth and Athens. (On queried figures see note in text.)

as possible with the ratio of mint-output of 70/80:100 suggested above for Clarentzia and Thebes in the years 1278/80-1307/8. The form of publication does not allow this to be done exactly, as the number of *tournois* of William de la Roche is not always stated. If the facts diverge from the approximation, they cannot alter the point I am making, and would probably be in the direction to strengthen it. The stray finds show that in the currency of the town itself of

	Achaian coins of 1278-1307	Athenian coins of 1280-1308
Corinth finds	120	100
Hoard-evidence	70/80	100
Athens finds	23	100

TABLE 9. The evidence of the hoards and of the stray finds compared: the proportions of Athenian and Achaian coins of 1278/80-1307/8. (See note in text.)

Athens the local issues were far more heavily represented than in the currency, or at any rate the hoards, from Attica. One may draw the conclusion that the local transactions of the market-place made up an important proportion of the exchanges in which money passed from hand to hand, or, in other words, that over a given period an important proportion of the currency which happened to be in the town of Athens stayed in Athens, while a much smaller proportion was carried into the rest of the country and into other towns. This suggests that the *deniers tournois* were to a considerable extent, perhaps primarily, a city-coinage, and that the use of coinage was to a similar extent concentrated in the towns. The role of the towns in the geographical pattern of monetary circulation no doubt explains the length of time for which local coins could be more common in their region of issue than elsewhere, and also the gradual progress by which their proportions in the hoards approached those of the relative output of the mints.

The purchasing power of a *denier tournois* cannot be expressed at all accurately in terms of present-day coins, since money is used in the exchange of so much wider a range of commodities, whose relative values may be very different from those of the thirteenth and fourteenth centuries. All the same, it is helpful to know that a *denier* was, very roughly, worth rather more than sixpence of current British money, while a Venetian *grosso* (which looks about the same as a modern sixpence) would by the same calculation purchase roughly as much as seven shillings and sixpence will today.¹⁹ Thus the Xirokhoron hoard was the equivalent of perhaps £75, and the Orion hoard of £20. In comparison with many medieval coins the *tournois* was of low value.



FIG. 3. MAP TO SHOW THE PROVENANCE OF HOARDS OF *DENIERS TOURNOIS*, AND THE MINTS AT WHICH THEY WERE STRUCK. (Mint towns are marked by circles, and find-spots by triangles (hoards) or by three dots (stray finds).)

It was suited to the needs of the market-place rather than those of the merchant, so that, although it was supported by a copper coinage of even lower value, it was little better than a petty coinage. The use of the Venetian *grosso* in Greece may be partly explained by the need which was felt for a coin of higher value than the *tournois*, a need which had been met in France by the introduction of the *gros*.

The geographical distribution of the hoards provides other clues about the use of coinage. From the map (FIG. 3) one can see that nearly all the hoards come from a relatively small part of Greece, namely, the area extending from Corinth and the shores of the Corinthian Gulf, through Attica and Bœotia, to Atalandhi and the region of the Gulf of Volos on the north-east. The 'laws' which govern the deposit of hoards²⁰ are very different from those which apply to stray finds: how far can one assume that the main region of circulation of the *tournois* was that indicated by the distribution of hoards? In general, more archaeological discoveries are reported

¹⁹ For the basis of these calculations see C. Clark, *The Conditions of Economic Progress* (1951).

²⁰ See B. Thordeman, *Numismatic Chronicle* 1948, 188 ff.

from Attica and central Greece than from other parts of the country. May not the list of hoards reflect nothing more than this? It is well known, if regretted, that far more hoards of *tournois* have been discovered than have found their way to the National Museum in Athens. Especially in the past, many have been put into the melting-pot, to secure the miserable amount of silver which they contain. Fortunately, there seems to be a way of showing that factors such as these have not obscured the evidence. The list of *tournois* hoards can be compared with that of Byzantine scyphate bronze hoards of the twelfth century. From the point of view of the peasant or the antique-dealer there is not very much to choose between *tournois* and scyphate bronze, and their original purchasing power was of a similar order. When one sees, therefore, that scyphate bronze hoards have been reported mostly from northern Greece and from the Aegean islands and the Peloponnese, and hardly at all from central Greece, while the pattern for *tournois* is just the opposite, one may feel able to accept the evidence of the hoards at its face value.

The proviso must be made that the limits of the region over which *tournois* have been found are somewhat wider than those of the area where they mainly occur. Many stray finds have

Excavations	Byzantine coins	Frankish and Venetian Levantine coins
Sparta, 1924 . . .	100	6
Sparta, 1925 . . .	100	6
Athens, 1931-49 . . .	100	10
Corinth, 1896-1929 . . .	100	9
Corinth, 1930-5 . . .	100	8
Corinth, 1936-9 . . .	100	10

TABLE 10. Frankish coins at Sparta: quantities compared with those of Byzantine coins. The proportion of Venetian Levantine coins is probably small in every case except Corinth, 1936-9.

been discovered, for instance, during the excavations of the British School at Sparta. If their quantities are compared with the Byzantine coins from the same source, and these proportions with the ones from Corinth and Athens (TABLE 10), a slight difference is revealed. The Frankish currency may not have been in use for so long in Sparta as in central Greece. The evident reliability of the proportions is, once again, most striking. The classes of coins which can be compared, however, are too large for very useful conclusions to be drawn: one would like to have seen these forty-two Frankish and Venetian coins from Sparta published in full. They might, for instance, show an interesting preponderance of Achaian issues.

A remarkable number of *tournois* hoards has been found at Delphi, deposited at various dates in the fourteenth century. In one sense, the explanation lies in the prolonged and extensive excavations which have been made there, but on the other hand Delphi must have been a site near which a great many deposits were concealed over the years, seeing that there are half a dozen which their owners failed to recover. The route from Bœotia to the Gulf of Corinth seems to have been in common use, on the numismatic evidence, during the fourteenth century.

One or two other hoards—Tatoi and Kapandriti, for example—may be associated with routeways. The largest group of find-spots, however, if they are divided according to type, consists of those associated with ports. Corinth, Eleusis, and Patras fall into this class, and it may be not without significance that the Xirokhorì, Atalandhi, Kapareli, Orion and, indeed, Delphi hoards were concealed so close to the sea. The economics of commodity-transport in the Middle Ages are reflected in the distribution of these coin-finds from Greece: there was hardly a place in the duchy of Athens that was as much as twenty miles from the sea.

The weight of the evidence links the currency of *deniers tournois* with the duchy of Athens and especially with the coast from Athens to Corinth and its hinterland. The period of greatest mint-output in Greece as a whole coincides with the vigorous administration of the Athenian duchy by William and with the majority of Guy II. The decline of the coinage followed not long after the fall of Athens. The economic life of the duchy differed from that of Achaia. The latter was essentially feudal and agricultural, whereas it was the industry of Thebes—particularly its silk-manufacture—and the trade that flowed from it which, almost certainly, promoted a greater degree of town life and a greater use of coinage in the duchy and on the nearby coasts than elsewhere.²¹

HISTORICAL SUMMARY

(a). *The earliest period of the tournois currency, (?)1267–1280.* The date at which *tournois* were first struck in Greece is at present uncertain. It seems probable that they may have been introduced, to supplement a supply of similar coinage derived from Provence, soon after 1267. For at least thirteen years Clarentzia was the only mint striking *tournois*. The billon currency was supported by a petty coinage of copper, although it was itself of low value. To a considerable degree the use of coinage was confined to the towns, both in this and in the following periods. If the date of 1267 is correct, the mint-output per annum for the reign of Charles I seems to have fallen to less than half what it had been, on average, under William.

(b). *The parallel-coinage, 1280–94.* William de la Roche, who became duke of Athens in 1280, began to put out *tournois* from the mint of Thebes, closely similar to those of Achaia. It seems possible that they were issued as a result of an agreement, of which no record has survived, between him and Charles I. During his reign about three times as much coinage was struck there as at Clarentzia. After his death, however, the position was reversed, as the Athenian mint almost ceased production. The Achaian mint appears to have been relatively more active under Charles II, striking roughly three times as much coinage per annum as it had, on average, during the reign of William of Villehardouin. French *tournois* were not present in the currency in significant amounts during this period.

(c). *The hey-day, 1294–1311.* The hey-day of the Frankish *tournois* coinage was in these seventeen years. The total output of the mints rose greatly c. 1295, and fell almost as sharply after the defeat of Athens in 1311. There were three major mints at work, as Philip of Taranto issued *tournois* at Lepanto before becoming prince of Achaia, and kept both his mints in operation afterwards. On his accession as prince, however, the output of the Lepanto mint was cut to about one-third of what it had been. At this level it was striking 10–20 per cent. as much coinage as the Clarentzia mint, which was very active under Philip. The volume of Athenian issues again rose sharply, no doubt when Guy II attained his majority. Until his death the mint at Thebes was striking rather more coinage than that at Clarentzia. In Thessaly the minor mint of Neopatras struck perhaps 5 per cent. as much coinage per annum as Thebes, if not more. The mint of Tinos was, by comparison, not important, while those of Corfu and Salona were even less so.

(d). *Decline, 1311–c. 1400.* Achaian *tournois* were issued in some quantities throughout the reign of John. After 1333 few were struck, but the Clarentzia mint may have been responsible for a large quantity of imitations of Venetian *soldini*. (See the notes on the Kapareli hoard, below.) The *tournois* were still being hoarded at the end of the fourteenth century. Thus the stock of coinage issued during about seventy years remained in circulation for another seventy. In the 1320's small quantities of *tournois* were struck at Arta and Chios.

²¹ W. Miller, *The Latins in the Levant* (1908) 65 f.

CATALOGUE OF HOARDS

The hoard-series

A. Corinth, 1934	(1253-70)
B. Xirokhorí, 1957	(1285-7)
C. Delphi, 1933	(1301-5)
D. Delphi, 1929	(probably 1311)
E. Eleusis, 1862	(probably 1311)
F. Tatoi, c. 1860	(1307-16, perhaps 1311)
G. Attica (?), 1951	(1318-20)
H. Attica, 1950	(1318-25)
I. Orion, 1959	(1320-5)
J. Tritaea, 1933	(1320-35)
K. Atalandhi, 1940	(1325-30)
L. Delphi, 1894 B	(1325-40)

A. Corinth, 1934 (1253-70)

Find-spot: 37.55 N., 22.57 E.

369 French *tournois*, 18 English, Venetian, and French silver and billon coins and 1 Byzantine gold *nomisma*.

France. Tours, abbatical, twelfth to thirteenth centuries (66). Philippe Auguste, 1180-1223 (30). Louis VIII, 1223-6 (42). Louis IX, 1226-70 (192). Alfonse de Poitiers, marquis of Provence, 1249-71 (21). The same, count of Poitou, 1241-71 (2). The same, count of Toulouse, 1249-71 (2). The same, count of Riom (5). Charles I of Anjou, count of Provence, 1246-85 (9).

England. Short-cross coinage, 1180-1247—London, 7; Canterbury, 2; Winchester, 1—(10).

Venice. Levantine coinage: J. Tiepolo, 1229-49 (3). M. Morosini, 1249-53 (1). R. Zeno, 1253-68 (3).

France. Champagne (1).

Byzantine. John III of Nicaea, 1222-54 (1).

The hoard is dated by the coins of Raniero Zeno. Its place in the monetary history of Greece is discussed in the text. Disposition: the complete hoard is in the Corinth Museum. See K. M. Edwards, *Corinth Reports VI: Coins, 1896-1929* (1933), for a few further details on the French types.

B. Xirokhorí, 1957 (1285-7)

Find-spot: 37.31 N., 21.39 E. (near Zahkáro). The exact find-spot was named as Panagitsa Xerokhoríou.

2,453 French and Frankish *deniers tournois* and 2 Venetian *grossi*, attributed to the following reigns:

France. Louis VIII or IX, 1223-70 (7). Philippe III, 1270-85 (1). Alfonse de Poitiers, count of Toulouse, 1249-71 (7). The same, count of Poitou, 1241-71 (3). Raimond VII, count of Provence, 1222-49 (25). Unidentified (number not stated).

Greece. Achaia. XII, 11 (152). XII, 12 (127). XII, 13 (2). XII, 16 (766). XII, 17 (715). Athens. XIII, 2 (633).

Venice. M. Morosini, 1249-53 (1). R. Zeno, 1253-68 (1).

The *terminus ante* is 1285, from the Achaian coins of Charles II. (But see notes on XII, 16-17.) In the absence of coins of Florent the deposit could not well be later than 1290. The high ratio of coins of Charles I to those of Charles II is contrary to all the other hoard-evidence, so that there can be little doubt, the find-spot being in western Achaia, that the deposit was early in the reign of Charles II. A date of 1285-7 is accordingly suggested.

M. Unknown Locality (Aegean (1325-40) area?), 1858

N. Elatia, before 1885 (1328-42)

O. Delphi, 1894 Γ (1339-44)

P. Patras, 1955 (1343-55)

Q. Kapareli, 1927 (1356-63)

R. Eleusis, 1952 (1365-80)

S. Delphi, 1894 A (1400-20)

Hoard of uncertain date of deposit

Peloponnese, 1849 (c. 1400)

Kapandriti, 1924 (?)

Charles II's reign saw a good deal of fighting between the Franks and Byzantines in the Peloponnese, particularly in Arcadia, during which the advantage often lay with the Byzantine forces. The hoard may have been concealed because of these disturbances.

The Xirokhorí find serves to confirm the attribution of the types inscribed G.PRINCEPS and G.PRINCE.ACH (XII, 11-12) and G.DVX (XIII, 2) which Schlumberger presented, and demonstrates the rarity of variants such as XII, 13. It also illustrates the delay in the circulation of Athenian coins into the western Peloponnese.

Disposition: the complete hoard is in the Greek National Numismatic Collection.

Details of the types are as published by Mrs. I. Varoukha-Khristodouloupoulou in *BCH* 1958, 654, to which reference should be made for a few further details on the French coins.

C. Delphi, 1933 (1301-5)

Find-spot: 38.28 N., 22.30 E.

38 Frankish *deniers tournois* and 19 Venetian and Serbian *grossi*.

Greece. Achaia. XII, 11 (2, including one uncertain). XII, 3 (3, two uncertain). XII, 16 (1), XII, 17 (2). XII, 19 (2). XII, 20 (3). Achaia, uncertain (2). Athens. XIII, 2 (8, one uncertain). XIII, 9 (10). Epirus. XIII, 20 (4). Uncertain (1).

Venice. I. Tiepolo, 1228-49 (1). M. Morosini, 1249-53 (1). R. Zeno, 1253-68 (3). L. Tiepolo, 1268-75 (2). I. Contarini, 1275-80 (2). I. Dandolo, 1280-9 (8). P. Gradenigo, 1289-1311 (1).

Serbia. Uroš II Milutin, 1282-1321, Ljubić pp. 38ff., type III (1).

The latest coins are those of Philip of Savoy (1301-7). Examples belonging to Philip of Taranto, usually a good deal more numerous than those of his predecessor, are absent, so that the deposit cannot have been long after 1307. It has been suggested to me that both this and the Delphi 1929 hoard were concealed in 1311, at the time of the fall of the duchy of Athens. Plenty of instances are known where two medieval hoards from the same locality were deposited at the same time and doubtless under the same threat, so that *prima facie* the suggestion is a good one. But the parcel is large enough, I think, for the absence of coins of Philip of Taranto not to be merely a matter of statistical chance. In the Delphi 1929 hoard, almost certainly deposited in

1311, the coins of Philip of Taranto already outnumber those of Philip of Savoy (68:60). Also, a date of deposit of 1311 would raise the question why the *grossi* of Pietro Gradenigo, usually much more numerous than those of Giovanni Dandolo (Delphi 1929, 58:10; cf. also Unknown Locality *BCH* 1957; Caribollo), are here heavily outnumbered by them (1:8).

Further, the ratio of Venetian to Serbian *grossi* is significantly different in the two hoards from Delphi (18:1, cf. 4½:1 in the 1311 hoard.) There is a similar change in ratio between the Verona (c. 1285-90) and Caribollo hoards, from 93:1 to 1⅞:1. It has been interpreted as showing the influx of Serbian coins on to the Adriatic coasts and the regions connected with them by trade, in the years around 1300. I submit that the Greek evidence agrees with and confirms that from northern Italy.

On these three grounds, the Delphi hoard cannot, I would say, have been concealed later than 1305.

Disposition: the complete hoard is in the Greek National Numismatic Collection.

A brief notice of the hoard appears in *BCH* 1934, 236.

D. Delphi, 1929 (probably 1311)

Find-spot: 38.28 N., 22.30 E.

The hoard consisted of 560 Frankish *deniers tournois*, and 82 Venetian and 18 Serbian *grossi*.

Greece. *Achaia*. XII, 11 (13). XII, 12 (8). XII, 16 (2). XII, 17 (19). XII, 18 (18). XII, 19 (42). XII, 20 (60). XII, 21 (68). *Athens*. XIII, 2 (59) (N.B. XIII, 3—none.) XIII, 9 (188). *Epirus*. XIII, 20 (72). XIII, 26 (7). *Neopatras*. XIII, 18 (3).

Venice. R. Zeno, 1253-68 (2). L. Tiepolo, 1268-75 (6). I. Contarini, 1275-80 (6). G. Dandolo, 1280-9 (10). P. Gradenigo, 1289-1311 (58).

Serbia. Stefan Dragutin, 1276-1316, Ljubić p. 54, type II (3, including one probably a contemporary forgery). Uroš Milutin, 1282-1321 (15).

The coins of Philip of Taranto outnumber those of Philip of Savoy less markedly than usual, so that a date of deposit in the middle of the latter reign is indicated by the numismatic evidence. It is very probable that the hoard was concealed in 1311, at the time of the fall of the duchy of Athens.

Disposition: the complete hoard is in the Greek National Numismatic Collection.

A short notice appeared in *BCH* 1929, 492, and a corrigendum in *BCH* 1930, 456.

E. Eleusis, 1862 (probably 1311)

Find-spot: 38.2 N., 23.32 E.

A pot-hoard said to total 1,076 coins; French, Italian, and Frankish. Lenormant saw over 500 of the coins and described the entire hoard as follows:

France. Philippe IV, 1285-1314, *gros tournois* 'of the ordinary type' (175).

Sicily. Federico, 1296-1337, *grossi* (100).

Greece (quantities not stated; total about 800). *Achaia*. XII, 11. XII, 12. XII, 16. XII, 18. XII, 20. XII, 21. *Athens*. XIII, 2. XIII, 3. XIII, 9. XIII, 10. XIII, 11 (one specimen only). *Epirus*. XIII, 20. (N.B. No specimens of XIII, 26.) *Neopatras*. XIII, 18. *Epirus*. Manfredi, king of Sicily, 1254-66, de Saulcy XVIII, 4 (1).

The rare coin of Walter of Brienne places the deposit after 1308. There can be little doubt, particularly as the

coins were in a coarse pottery vessel, that the hoard was concealed in 1311, at the time of Walter's defeat and death.

Lenormant, who had previously published evidence of a Frankish fortress on the acropolis of Eleusis, associated the find of coins with the importance of the place under the Franks. The further finds of 1933 and 1952 gratifyingly confirm his conclusions. He suggested that the Sicilian coins had been brought to Greece by members of the Catalan Company, who, a few years earlier, had taken service with Guy II, and that the *gros* of Philippe IV had probably been brought to Greece on the occasion of the visit of the French admiral Cépoy, and had passed into the currency, from which they, or others like them, were drawn by the person who concealed this hoard.

If it were true that French *gros* and Sicilian *grossi* were widespread in the currency of Greece, or even of Attica, in 1311, it is almost certain that at least a few would have occurred in one or other of the hoards of Delphi 1929, Tatoi, Attica 1951, and Attica 1950. Their absence shows that a more particular explanation must be sought for the Eleusis find. A comparison is afforded by the Delphi 1894 Δ hoard, not mentioned elsewhere in this article since it did not contain any *tournois*. It consisted of 29 *grossi*, principally Sicilian, and was deposited, according to Caron, after 1316 (*BCH* 1897, 26 ff.). If the one French *gros* among them is correctly attributed to Philippe VI, the date must, of course, be after 1326, and probably after 1329. In any case, here is a hoard concealed some years after that from Eleusis, which similarly reflects links between Sicily and Greece. Both may have had some connexion with the Catalan Company. In the light of the hoard-series for the whole of the fourteenth century, one would suppose that the Delphi 1894 Δ hoard, and the silver coins in the Eleusis hoard, were sums of money which had remained intact since having been brought to Greece, and had presumably therefore been in the country at the most for a year or two.

The Eleusis find is quite important from the numismatist's point of view. It provides the only satisfactorily dated context for Schl. XIII, 10, as well as provenances for the rare pieces of Walter of Brienne and Manfredi. The variety of the Epirote coin XIII, 20 with legend *DESP.A* is of interest, and the comments on the varieties of XII, 21 deserve further study, which will, I regret, have to await a re-examination of the hoards. De Saulcy's conclusions cannot, however, be accepted straightforwardly, if only because XIII, 26 occurs in the hoard of Delphi 1929.

Disposition: dispersed and unknown.

F. Lenormant, 'Monnaies du moyen âge découvertes à Éleusis', *Revue numismatique* 1864, 37 ff.

F. Tatoi, c. 1860 (1307-16, perhaps 1311)

Find-spot: 38.14 N., 23.46 E.

The hoard consisted of about 400 *deniers tournois*. They were not described, except to say that the latest were Achaian coins of Philip of Taranto, and Athenian coins of Guy II. Lenormant suggested that the deposit was concealed at the time of the fall of the duchy of Athens.

Disposition: unknown.

F. Lenormant, *Revue numismatique* 1864, 51.

G. Attica (?), 1951 (1318-20)

Find-spot: unknown.

3 French and 208 Frankish *tournois*.

France. Charles I of Anjou, count of Provence, 1246–85, *P.A.* 3752–3, pl. lxxxviii. 14 (2). Alfonse de Poitiers, marquis of Provence, 1249–71, *P.A.* 3734–6, pl. lxxxi. 20–21 (1).

Greece. Achaia. XII, 11 (4). XII, 12 (1). XII, 16 (1). XII, 17 (5). XII, 18 (12). XII, 19 (14). XII, 20 (7). XII, 21 (32). XII, 24 (27). XII, 25 (2). *Uncertain* (2). *Athens.* XIII, 2 (23). XIII, 9 (43). *Epirus.* XIII, 20 (27). XIII, 26 (4). *Neopatra.* XIII, 18 (2). *Uncertain* (2).

Two coins of John, compared with twenty-seven of Maud, show a ratio far lower than in any other hoard. This deposit, which is thought to have been found somewhere in Attica, must have been concealed very shortly after John's coins came into use.

All three French coins are Provençal, and all had been in circulation for some time before they were hidden. They are in a worn condition.

Disposition: the complete hoard is in the Greek National Numismatic Collection.

A notice of its acquisition was published in *BCH* 1952, 205.

H. Attica, 1950 (1318–25)

A parcel of 20 Frankish *tournois*.

Greece. Achaia. XII, 11 (1). XII, 19 (2, one broken). XII, 21 (1). XII, 22 (1). XII, 25 (1). *Athens.* XIII, 2 (2). XIII, 9 (5). *Epirus.* XIII, 20 (4). XIII, 26 (1). *Neopatra.* XIII, 18 (1). *Uncertain* (1, contemporary forgery?).

There are too few coins for any conclusions to be drawn.

Disposition: the coins are in the Greek National Numismatic Collection.

A notice of their acquisition was published in *BCH* 1951, 105.

I. Orion, 1959 (1320–5)

Find-spot: 38.32 N., 24.6 E. (about 5 km. NNW. of Avlonarion).

584 French and Frankish *tournois*.

France. Charles I of Anjou, count of Provence, 1246–85, *P.A.* 3952–3, pl. lxxxviii. 14 (1).

Greece. Achaia. XII, 11 (7). XII, 12 (6). XII, 16 (2). XII, 17 (13). XII, 18 (11). XII, 19 (42). XII, 20 (53). XII, 21 (81). XII, 22 (1). XII, 23 (7). XII, 24 (51). XII, 25 (32). *Achaia, uncertain* (24). *Athens.* XIII, 2 (54). XIII, 3 (5). XIII, 5 (4, see notes on this type, below). XIII, 7 (1). XIII, 9 (119). *Epirus.* XIII, 20 (48). XIII, 26 (11). *Neopatra.* XIII, 19 (2). *Chios.* XIII, 32 (1). *Uncertain* (8).

The proportion of John's coins to those of Maud is rather lower than usual, so that the hoard would seem to have been concealed probably quite early in John's reign. The Chiote type is thought to have been struck after c. 1320.

Disposition: the complete hoard is in the Greek National Numismatic Collection.

Mrs. Varoukha-Khristodouloupoulou expects to publish it in *BCH* 1960, but has kindly allowed me to study the coins beforehand.

J. Tritaea, 1933 (1320–35)

Find-spot: not known.

72 Frankish *tournois*.

Greece. Achaia. XII, 11 (2). XII, 16 (2). XII, 17 (2). XII, 18 (2). XII, 19 (2). XII, 20 (3). XII, 21 (7). XII,

24 (10). XII, 25 (11). *Athens.* XIII, 2 (4). XIII, 9 (12). *Epirus.* XIII, 20 (8). XIII, 26 (1). *Uncertain* (6).

The proportion of Epirote coins is above average, and the hoard thus helps to show how restricted their circulation was.

Disposition: the complete hoard is in the Greek National Numismatic Collection.

A notice of its acquisition was published in *BCH* 1934, 236.

K. Atalandhi, 1940 (1325–30)

Find-spot: 38.39 N., 23.2 E.

287 Frankish *tournois*.

Greece. Achaia. XII, 11 (4). XII, 12 (4). XII, 16 (1). XII, 17 (1). XII, 18 (6, one broken). XII, 19 (19). XII, 20 (28). XII, 21 (28). XII, 24 (36). XII, 25 (48). *Athens.* XIII, 2 (29). XIII, 3 (1). XIII, 9 (46). *Epirus.* XIII, 20 (16). XIII, 26 (3). *Arta.* XIII, 16 (4). *Chios.* XIII, 32 (1). *Uncertain* (13).

The coins of the mint of Arta place the deposit after 1323. The proportion in which they occur makes one wonder whether they had reached Atalandhi by the short route across Epirus and Thessaly. The discovery of another hoard from this decade is needed before the question can be answered.

Disposition: the complete hoard is in the Greek National Numismatic Collection.

The war prevented its publication.

L. Delphi, 1894 B (1325–40)

Find-spot: 38.28 N., 22.30 E.

2,533 French and Frankish *tournois*, and 2 Frankish non-*tournois*.

France. Louis VIII or IX, 1223–70 (2). Charles I of Anjou, count of Provence, 1246–85 (5). Alfonse de Poitiers, count of Toulouse, 1249–71 (1).

Greece. Achaia. XII, 11 (3). XII, 16 (13). XII, 17 (90). XII, 18 (69). XII, 19 (201). XII, 20 (265). XII, 21 (316). XII, 22 (5). XII, 23 (12). XII, 24 (284). XII, 25 (281). *Athens.* XIII, 2 and 3 (272). XIII, 5 (1, DVX ATENES). XIII, 9 (441). XII, 6, DVX ACTENAR/TEBAR CIVIS (2). *Epirus.* XIII, 20 and 26 (251). *Neopatra.* XIII, 18 (11). *Arta.* XIII, 13/16 (1). *Chios.* XIII, 32 (1). *Tinos.* XIII, 29 (1). *Karytaina.* XII, 28 (1). *Forgeries* (4). *Uncertain* (2).

The hoard is dated by the Epirote coins of John Orsini.

It contains an unusually low proportion of early Achaian coins (see Table 4), which suggests that it may have been a sum of money selected rather more carefully than usual from the currency. This feature of the hoard remains, however, rather puzzling.

Disposition: the complete hoard passed into the Greek National Numismatic Collection.

It was published in detail and discussed by E. Caron in 'Trouvailles de monnaies du moyen âge à Delphes', *BCH* 1897, 26 ff.

M. Unknown Locality (Aegean area?), 1858 (1325–40)

Frankish coins, including Chiote *tournois* and one coin of Damala.

Martin Zaccaria, the lord of Chios, became lord of the Achaian fiefs of Veligosti, Damala and Chalandritza also, in

c. 1324. The association of a coin of Damala (which is of excessive rarity) with Chiote pieces suggests that the hoard may have been concealed after that date. In any case, it must have been after c. 1320.

Disposition: Lambros acquired some Chiote coins from the hoard.

See P. Lambros, *Mélanges de numismatique* ii (1877) 246 ff.; Schlumberger under the appropriate types; and D. Promis, *La zecca di Scio durante il dominio dei Genovesi* (1865).

N. Elatia, before 1885 (1328-42)

Find-spot: 38.37 N. 22.46 E. (in the floor of the Panaghia church).

The hoard consisted of 138 Frankish *tournois* and 22 silver [?] coins of Francesco Dandolo. If, as is likely, the Venetian coins were *soldini*, the years of the deposit could be stated as 1333-40.

Disposition: not stated.

See *BCH* 1885, 40.

O. Delphi, 1894 Γ (1339-44)

Find-spot: 38.28 N., 22.30 E.

266 Frankish *tournois* and 11 *soldini*.

Greece. Achaia. XII, 11 and 12 (5). XII, 16 (2). XII, 17 (4). XII, 18 (6). XII, 19 (23). XII, 20 (19). XII, 21 (33). XII, 22 (1). XII, 23 (2). XII, 24 (30). XII, 25 (31). *Athens.* XIII, 2 and 3 (29). XIII, 5 and 9 (47). *Epirus.* XIII, 20 and 26 (31). *Neopatras.* XIII, 18? (1). *Uncertain* (2).

Venice. F. Dandolo, 1329-39 (9). B. Gradenigo, 1339-43 (2).

The date of deposit can be determined fairly closely, as the common *soldini* of Andreas Dandolo are absent from the hoard.

Disposition: the complete hoard passed into the Greek National Numismatic Collection.

It was published in detail and discussed by E. Caron in 'Trouvailles de monnaies du moyen âge à Delphes', *BCH* 1897, 26 ff.

P. Patras, 1955 (1343-55)

Find-spot: 38.14 N., 21.44 E.

About 1,000 billion coins, of which 160 Frankish *tournois* and 150 *soldini* are described.

Greece. Achaia. XII, 11 (1). XII, 16 (1). XII, 17 (2). XII, 18 (2). XII, 19 (9). XII, 20 (5). XII, 21 (14). XII, 22 (2). XII, 24 (27). XII, 25 (30). XII, 27 (13). *Uncertain Achaian.* (6). *Athens.* XIII, 2 (9). XIII, 3 (1). XIII, 9 (12). *Epirus.* XIII, 20 (13). XIII, 26 (2). *Neopatras.* XIII, 18 (1). *Arta.* XIII, 16 (2). *Tinos.* XIII, 29 (1). *Uncertain* (7).

Venice. F. Dandolo, 1329-39 (110). B. Gradenigo, 1339-43 (17). A. Dandolo, 1343-54 (23, all of the large type).

The hoard must have been concealed after 1343, and before the reformed *soldini* of 1353 had had time to reach Greece.

It contains an interestingly large number of coins of Lepanto and the minor mints.

Disposition: the 310 coins listed above were acquired by the Greek National Numismatic Collection.

A notice of the hoard was published in *BCH* 1956, 228-9.

Q. Kapareli, 1927 (1356-63)

Find-spot: 38.13 N., 23.12 E.

53 Frankish *tournois*, 71 *soldini*, and 1 Sicilian *grosso*.

Greece. Achaia. XII, 17 (2). XII, 18 (1). XII, 19 (1). XII, 20 (4). XII, 21 (4). XII, 24 (5). XII, 25 (19). XII, 27 (11). *Athens.* XIII, 2-3 (1). XIII, 9 (4). *Epirus.* XIII, 20 or 26 (1).

Venice. F. Dandolo, 1329-39 (struck from 1332) (45, of which 28 may be copies struck at Clarentzia). B. Gradenigo, 1339-43 (10, of which 7 may be from Clarentzia). A. Dandolo, 1343-54 (13, of which 2 are of the later type, of better alloy, struck from 1353, and the others are perhaps not Greek). G. Dolfin, 1356-61 (2). *Uncertain* (1).

Sicily. Federico III, 1355-77 (1).

The Kapareli hoard was the subject of a short monograph by Miss D. H. Cox, who suggested that some of the coins in it were of the previously unidentified type of forgeries of the Venetian *soldino*, that they were struck at Clarentzia between 1333 and 1364, under the direction of Niccolo Acciajuoli.

Miss Cox, I feel, did not prove her case very fully, although the account of Greek monetary history which she advanced may nevertheless be true. Robert was prince of Achaia from 1333 onwards, so that the onus of proof would seem to require a demonstration that he did *not* strike *tournois* until 1346. There are 31 coins of John and none of Robert in the Delphi 1894 Γ hoard, deposited shortly after 1339, while in the 1894 A hoard, deposited after 1400, there are only 6, compared with 135 of John. This hoard serves as a caution that hoard Γ ought not to be used as an argument for the late issue of Robert's *tournois*. Patras 1955 might have been deposited too late, and is rather too near Clarentzia, to prove the point.

Comment on the *soldino* series falls outside the scope of this article.

The hoard is dated by *soldini* of Giovanni Dolfin.

Disposition: not stated.

See D. H. Cox, *The Caparelli Hoard*, New York, 1930, for further details on the coins other than *tournois*.

R. Elevisis (near), 1952 (1365-80)

Find-spot: near 38.2 N., 23.32 E.

1,018 *soldini*. 557 *tournois*, and (perhaps) 1 Ragusan coin.

Venice. F. Dandolo, 1329-39 (505). B. Gradenigo, 1339-43 (78). A. Dandolo, 1343-54, large type (93). Large type, uncertain, of the preceding three doges (122). A. Dandolo, small type (41). M. Faliero, 1354-5 (1). G. Gradenigo, 1355-6 (19). G. Delfin, 1356-61 (103). L. Celso, 1361-5 (25). M. Cornario, 1365-8 (5). Small type, uncertain doge (26).

Greece. Achaia. XII, 11 (8). XII, 12 (4). XII, 16 (2). XII, 17 (10). XII, 18 (8). XII, 19 (15). XII, 20 (24). XII, 21 (47). XII, 23 (3). XII, 24 (64). XII, 25 (140). XII, 27 (17). *Athens.* XIII, 2 (35). XIII, 3 (1). XIII, 5 (2: ATENES, one, ACTENAR, one). XIII, 9 (71). *Epirus.* XIII, 20 (45). XIII, 26 (7). *Neopatras.* XIII, 18 (3). *Tinos.* XIII, 29 (1). *Uncertain* (48).

Ragusa. SBLASIVS RAGVSII 16 4S, figure of saint. Rev. Christ blessing, star in field (1, pierced). Not associated with the deposit?

Disposition: the complete hoard is in the Greek National Numismatic Museum.

A notice of its acquisition was published in *BCH* 1953, 794, where it was stated to contain 1,000 *soldini* and 550 *tournois*.

S. Delphi, 1894 A (1400-20)

Find-spot: 38.28 N., 22.30 E.

1,454 Frankish *tournois*, 2,388 *soldini* and *torniseli*, and 1 Byzantine coin.

Greece, Achaia. XII, 11 and 12 (39). XII, 16 (10). XII, 17 (41). XII, 18 (46). XII, 19 (104). XII, 20 (111). XII, 21 (154). XII, 22 (5). XII, 23 (1). XII, 24 (133). XII, 25 (135). XII, 27 (6). *Uncertain Achaian* (22). *Athens*. XIII, 2-3 (156). XIII, 4-5 (2). XIII, 9 (255). *Uncertain Athenian*, &c. (20). *Epirus*. XIII, 20 and 26 (201). *Neopatra*s. XIII, 18? (5). *Arta*. XIII, 16 (1). *Chios*. XIII, 32 (1). *Forgeries* (6).

Venice. F. Dandolo, 1329-39 (413). B. Gradenigo, 1339-43 (28). A. Dandolo, 1343-54 (doge with standard, 8; cross, 3). Coins with cross: G. Gradenigo, 1355-6 (1). G. Dolfin, 1356-61 (4). L. Celso, 1361-5 (12). M. Cornario, 1365-8 (59). A. Contarini, 1368-82 (383). M. Morosini, 1382 (7). A. Venerio, 1382-1400 (1254). M. Steno, 1400-14 (216).

Byzantine. ?Manuel III, 1390-1417, obv. cf. Sabatier lxviii. 14; rev. cf. Sab. lxix. 17.

Disposition: the complete hoard passed into the Greek National Numismatic Collection.

It was published in detail and discussed by E. Caron in 'Trouvailles de monnaies du moyen âge à Delphes', *BCH* 1897, 26 ff.

Peloponnese, 1849 (after c. 1350, perhaps c. 1400)

Find-spot: unknown.

Caron, mentioning the hoard, described it as quite similar to Delphi 1894 A. It contained some thousands of *tournois* and *soldini*.

Unfortunately the periodical *L'Istria*, in which Cumano published the find, is not at present available to me. I shall list the coins according to Schlumberger's plate references, with any necessary comments, in the form of a note when there is an opportunity.

Kapandriti, 1924 (?)

Find-spot: 38.13 N., 23.54 E.

About 750 *tournois* were acquired by the Greek Collection.

See *BCH* 1924, 451.

TABLE OF FRANKISH RULERS ISSUING *DENIERS TOURNOIS*, AND HAND-LIST OF SUBSTANTIVE TYPES

Princes of Achaia

William of Villehardouin, 1246-78

XII, 11 G.PRINCEPS

XII, 12 G.PRINCE.ACH.

Charles I of Anjou, 1278-85

XII, 16 CLARENTIA

Charles II of Anjou, 1285-9

XII, 17 DE CLARENTIA

XII, 19 Isabel of Villehardouin, 1289-1307

XII, 18-19 — with Florent of Hainault, 1289-97

XII, 19-20 — with Philip of Savoy, 1301-7

XII, 21 Philip of Taranto, 1307-13

XII, 24 Maud of Hainault, 1313-21

XII, 23-24 — with Louis of Burgundy, 1313-16

XII, 24-25 — with John of Gravina, 1318-21

XII, 22 Fernando of Majorca, pretender, 1315-16

XII, 25 John, alone, 1321-33

XII, 27 Robert of Taranto, 1333-64

Dukes of Athens

William de la Roche, 1280-7

XIII, 2 G.DVX/THEBE CIVIS

XIII, 3 „ THEBANI „

Guy II de la Roche, 1280-1308

XIII, 5 DVX ATENES/THEBE CIVIS } (minority)

XIII, 7 GVIOT

XIII, 9 GVI DVX (after 1294)

Neapolitan Princes ruling in Epirus and Corfu

Philip of Taranto, 1294-1313

XIII, 20 PHS. . . . DESP/NEPANTI CIVIS (before 1307)

XIII, 26 PHS. . . . D.R./ „ „ (after 1307)

Sebastocrators of Great Wallachia

John II Angelus Comnenus Ducas, 1303-18

XIII, 18 ANGELVS SAB.C./DELLAPATRIA

Lords of Tinos and Mykonos

George I Gisi, 1301-11

XIII, 29 IORGIVS GISI/THINE CIVIS

Lords of Chios

Martin Zaccaria, alone, c. 1320-9

XIII, 32 M.ZACHARIE/CIVITAS SYI

Despots of Epirus

John Orsini, 1323-35

XIII, 16 IOHS.DESPOTVS/DE ARTA CASTRV

NOTES ON CERTAIN OF THE SCARCE TYPES

Apart from the substantive types which have already been listed, Schlumberger published a number of others which are far less often found. Some of them may be variants of no great significance, some are perhaps early experimental

issues, some are certainly forgeries. Of the last, many are a good deal later in date than the types they copy, and may have been manufactured far afield from Frankish Greece. The importance of dated contexts for the scarce types will

be obvious; a few notes on them are gathered below. At the end appears a rather longer comment on the brief, but intriguing, list of provenances of the coins of Helena, which are supposed to have been struck by her for her dower-half-fief of Karytaina.

XII, 13 (TVRONVS CIVIS/CLARENTIA)

Xirokhorì provides an early dated context, but there were only two specimens among 1762 Achian coins struck before 1289. If it is an experimental type, it is probably early.

XII, 14 (G.PRINCEPS/THEBE)

One among the Corinth finds, 1896–1929. Cf. XIII, 10.

XII, 16 and 17 (KR.PRINC.ACH/CLARENTIA, DE CLARENTIA)

The attribution of these two similar types to Charles I and Charles II respectively is made on the reasonable grounds that CLARENTIA is otherwise found only on earlier *tournois*, and DE CLARENTIA only on later ones. XII, 17 is at least five times as common as XII, 16, whereas the reign of Charles I was longer than that of Charles II. Must one assume that the type was changed on the accession of Charles II? If so, there was a relatively large increase in mint-output at a date soon after 1285 in Achaia. If, on the other hand, some of XII, 17 were to be reattributed to Charles I, the *terminus ante* of the Xirokhorì hoard would have to be put back two or three years.

XII, 28 (HELENA DI GRA/CLARICTIA S.F.)

The only Greek hoard in which the type occurs is Delphi 1894 B. See the note on the Sierck hoard and the Lord Grantley parcel, below.

XIII, 3 (G.DVX ATENES/THEBANI CIVIS)

This appears to have been a regular issue, since it occurs, in small quantities, in a number of the hoards. There are

around 5 or 6 per cent. as many coins of the type as of XIII, 2. Perhaps it was an early variety.

XIII, 4 and 5 (DVX ATENES/THEBA and THEBE CIVIS)

The variant THEBE is represented in Orion, Delphi 1894 B and Unknown 1952: I have not noticed THEBA. DVX ACTENAR. is equally common with XIII, 5, i.e. there are two of each in Orion and one of each in Unknown 1952.

XIII, 7 (GVLOT DVX ATH./THEBE CIVIS)

The only context is the Orion hoard, in which there was one specimen.

XIII, 10 (GVI DVX ATENES/DE CLARENCA)

There were some in the Elevisis hoard of 1862, fortunately an early deposit. The Athens excavations yielded two, and one came from Corinth, 1896–1929. Cf. XII, 14.

XIII, 14 (THOMAS/DELLASOLA)

Note that none is reported from any of the Delphi hoards. There was one stray find at Athens.

XIII, 17 (ANGELVS SAB. C./NEOPATRIE)

One from the Athens finds, but no hoard-provenances.

XIII, 19 (DVX. ANGELVS/DELAPATRIA)

The Orion hoard is the only source. It is certainly significant that two dozen specimens of XIII, 18 occur in seven hoards, while XIII, 17 and 19 are so rare.

XIII, 24 (PHVS DEI GRA/CORFOI DNS)

One from the Athens finds.

XIII, 29 (IORGIVS GISI/THINE CIVIS)

There are enough hoard-provenances to suggest that the type was a regular, if small, issue (Delphi 1894 B, Patras, unknown 1952).

THE SIERCK HOARD AND THE LORD GRANTLEY PARCEL

The Sierck (Moselle) hoard contained a very small proportion of Frankish *deniers*. So far as I know, it is the only provenance for the series north of the Alps. The coins were as follows:

Greece. Achaia. XII, 11 and 12 (10). XII, 16 and 17 (18). XII, 18 (2). XII, 20 (4). Athens. XIII, 9 (4). Epirus. XIII, 20 or 26 (1). Karytaina. XII, 28 (2). Total, 41.

The proportion of the early Achaian types is higher than a study of the hoards would have led one to expect. It suggests that these 41 coins were carried from Greece to France at various times rather than on some special occasion, that such transfer was a good deal commoner before than it was after 1285, and that it had ceased by about 1310 (the date of deposit of the Sierck hoard seems to have been c. 1325).

It is very remarkable that there should have been two coins of Karytaina among a total of only 41. Some special explanation of their presence seems to be required.

Another four coins of Karytaina were included among the

parcel of 33 coins acquired by Lord Grantley in Athens at some date before 1923. Many of the coins are unusual and of great interest, and the parcel as a whole is altogether unlike any known hoard of *tournois*. It contains no coins of the substantive types, so that one wonders whether or not Lord Grantley selected this group of coins out of a much larger hoard. Unfortunately his account does not make this point clear. For a full description of the coins, the reader is referred to *Numismatic Chronicle* 1923, 47 ff. The two *deniers* reading IACOBVS and CIBANI CIVIS are attributed to the early part of the fourteenth century, and might well be of the same provenance as the blundered imitations of *tournois* of Guy II. One would hardly be justified, however, in assuming that all the coins were associated and that the types represented were all to be found in the currency of Aragonese Athens. The only other provenance for a coin of Karytaina is Delphi 1894 B, in which there was one such piece among 2,500.

D. M. METCALF

NELEION

OF the innumerable minor shrines which were scattered over all parts of the city of Athens and its suburbs, one of the most curious is the shrine of Kodros, Neleus, and Basile. Nothing of it has been found, and its site in south-eastern Athens is only approximately known, but we have a good deal of interesting and at some points puzzling information about it, mainly from an inscription, *IG* i². 94, a decree of the Boule and the Demos of 418/17 B.C. Much has been written about this decree,¹ which amongst other things has points of chronological interest and is important in connexion with the leasing of shrines, but its topographical and architectural implications have not been fully worked out, or else have been misinterpreted. E. Curtius, who first attacked the problem after Koumanoudes's provisional publication, went so far as to draw a plan of the shrine with the catchment area from which it drew the water for its olives, in relation to the neighbouring part of south-eastern Athens; but in nearly all particulars his plan is open to serious doubt. Others, including Judeich, who merely prints 'Neleus und Basile?' in the region of the presumed site (his Plan I, G 7), have been more vague and cautious. *IG* i². 94 will repay a little further topographical study, I believe, and several more recently found inscriptions may throw a little new but uncertain light on Basile.

Before quoting the relevant parts of the inscription I should like to mention briefly other possible references to the shrine. In Plato's *Charmides* (153a) Socrates enters the palaestra of Taureas, opposite the shrine of Basile (most manuscripts have βασιλικῆς, but Βασιλῆς is generally accepted as the correct reading). This may well be the same shrine, though it is not impossible that Basile had more than one shrine at Athens. The place where Kodros was killed may be related in some way to the shrine (see pp. 65 f. below); it is mentioned by Lycurgus (*Leokrates* 86) and Pausanias (i. 19. 6); his burial-place was under the Acropolis (*IG* ii². 4258). In Agora I 4138 (see p. 63 below) a priestess and possibly a temple of Basile are plausibly inserted in the restoration.

In *IG* ii². 4645 Basileia, who may be more or less the same personage (see p. 62 below), is associated with another hero, Zeuxippos; but the name of the heroine or goddess associated with Echelos at Phaleron in *IG* ii². 4546 is clearly and definitely inscribed as Iasile, and it is very unsafe to assume that this is a mistake for Basile, as has commonly been done.² In Agora I 1906 Echelos is brought into association with certain unnamed heroines.

¹ To works listed in *IG* add R. P. Austin in *JHS* li (1931) 287 ff.; B. D. Meritt in *AJP* lvii (1936) 180 ff. and *CQ* xl (1946) 45 f. The following works of topographical interest are cited hereafter by the author's name:

Koumanoudes, *AE* 1884 (1885) 162 ff.

E. Curtius, *Das Neleion oder Heiligthum der Basile in Athen*, *Sitzungsberichte der Berl. Akad.* 1885, 440 ff.; also published in Curtius's collected essays.

J. R. Wheeler, *AJA* iii (1887) 47 ff.

U. von Wilamowitz, *Aristoteles und Athen* ii. 130 and 240 (Wilamowitz mentions the shrine briefly also in *Lectioes Epigraphicae* 5).

Jane E. Harrison, *Mythology and Monuments of Ancient Athens* (1890) 228 ff.

E. S. Roberts and E. A. Gardner, *An Introduction to Greek Epigraphy*, part ii (1905) 54, no. 21.

Prott and Ziehen, *Leges Sacrae* ii. 1 (1909) 55, no. 13.

W. Dittenberger, *Sylloge Inscr. Graec.*³ i (1915) 120, no. 93.

W. Judeich, *Topographie von Athen*² (1931) 141-2, 387.

I worked on *IG* i². 94 while at the Institute for Advanced Study at Princeton, to whose great resources I am deeply indebted, especially to a helpful discussion with Mr. G. Stamires.

² See Meritt's remarks in connexion with Agora I 1906, *Hesperia* xi (1942) 282 ff., no. 55, and O. Walter in *AE* 1937, 97 ff. One should beware of publications of and commentaries on *IG* ii². 4546; for example, *IG*² is misleading in printing [B]ασιλη, and Roberts and Gardner in speaking simply of Basile (on *IG* 1². 94).

Agora I 1906, found in the wall of a cement and rubble pithos of Byzantine period on the north slope of the Areopagus, and dated early in the third century B.C. (though it quotes an earlier decree probably of the fifth century), is a decree of certain *orgeones* dealing with their cults (see, besides *Hesperia* loc. cit., W. S. Ferguson in *Harvard Theological Review* xxxvii (1944) 73 ff.).

The stele on which *IG* i². 94 is inscribed was extracted from a wall in building operations some distance south-east of the Acropolis, in what was then the southern outskirts of Athens. According to Koumanoudes (162 ff.) the exact place of finding had not been recorded, but it was said to be to the left of the tramway leading to Phaleron, in the direction of the right bank of the Ilissos, presumably near the site tentatively indicated by Judeich. Above the inscription was a relief, mostly cut away, which showed a bearded man seated on the left, and a man on horseback on the right.

In itself the finding-place of the stele would be almost valueless as evidence for the site of the shrine; it might have come from another part of Athens or the suburbs. But in fact it concurs with the indications in the text of the decree, and the stone no doubt stood not far from the place where it was found.

The provisions of the decree relevant for the present purpose run as follows:

The shrine (*hieron*) of Kodros and Neleus and Basile shall be enclosed (the verb is ἔρχσαι), and the precinct (*temenos*) shall be let in accordance with the terms agreed upon (*syngraphai*) (lines 4-5).

The *poletai* shall let the contract for making the enclosure; the *basileus* shall lease the *temenos*; the *horistai* shall be sent to fix the boundaries of these shrines (ὀρίσαι τὰ ἱερὰ ταῦτα); the money for making the enclosure shall come from the *temenos* (5-9).

From line 11 onwards we have an amendment, presumably added when the proposal put forward by the Boule was discussed in the Ekklesia:

The *basileus* and the *poletai* shall lease the *temenos* of Neleus and Basile (Kodros is not mentioned here) for twenty years (11-13). The lessee shall enclose the shrine (*hieron*) of Kodros and Neleus and Basile at his own expense (13-14).

In lines 20 ff. we read that the person who buys the mud (ἰλύν) shall convey it from the ditch after paying the price to Neleus. The *basileus* shall erase the name of the man who buys the mud when he has paid, and in its place (ἀντ-) he shall write the name of the lessee of the *temenos*, and the amount of the rent, and the sureties, on the wall (ἀντενγραφάτο ὁ βασιλεὺς ἐς τὸν τοῖχον) in accordance with the law established concerning *temene*. This decree, so that anyone who wishes may know of it, shall be inscribed by the *grammateus* of the Boule on a stele and set up (27-28) ἐν τῷ Νελείῳ παρὰ τὰ ἱκρία.

In lines 30 ff. it is repeated that the lessee shall enclose the shrine of Kodros and Neleus and Basile; he shall work the *temenos* of Neleus and Basile (again Kodros is not mentioned) as follows—he shall plant shoots of olives, not less than 200, and more if he wishes.

The decree concludes with the demarcation of a kind of catchment area. The lessee shall have control of the ditch and all the rain-water which flows within (the limits marked by) the Dionysion and the gate where the Mystai drive out seawards, and within (the limits marked by) the official house (*oikia demosia*) and the gate which leads out to the bath of Isthmonikos.

It would hardly be relevant here to discuss fully the character of the deities worshipped in the shrine. One need only remark that it is generally agreed that Kodros was a later addition.³ In a recent study of the Attic kings⁴ F. Brommer on the evidence of both literature and art maintains that we have in Kodros not a genuine historic tradition but a late and artificial construction. Neleus and Basile, some have suggested, were originally underworld deities, and Neleus

³ See Wilamowitz, 130 (cf. *Lect. Epigr.*); Roberts and Gardner; Prott and Ziehen; Judeich, 387; cf. Kern in Pauly-Wissowa s.v. Basile. On the other hand, Wheeler, following Curtius, is inclined to think that the establish-

ment of a shrine to Neleus belongs to the period when the Athenians lent assistance to the Ionian cities at the time of their revolt.

⁴ In *Charites* (presented to E. Langlotz, 1957) 161.

was subsequently equated with the son of Kodros, or possibly his ancestor Neleus of Pylos, Basile with a kind of personification of sovereignty like Basileia in Aristophanes' *Peace*.⁵

Line 4. ἐρχσαι may be taken to imply a high wall or substantial fence, such as would effectively keep out intruders, not mere markers or a flimsy boundary. Presumably the shrine had not been βεβίως κληστόν, and was among the majority of *hiera* and *heroa* on which, according to Thucydides (ii. 17. 1), squatters had encroached during the early years of the Peloponnesian War. One may perhaps assume that this decree was a contribution to the process of clearing up the city after the disorganization of these years. Probably a commission had been set up to look into the matter and the *syngraphai* mentioned in line 5 contained their agreed recommendations.

Hieron and *temenos* seem to be definitely differentiated here, *hieron* being the actual cult spot, the area occupied by the shrine or shrines, the *temenos* the rest of the ground allocated to the deities, which was free for cultivation and helped to support the cult.⁶ The relation of these two words is variable. They can be quite synonymous; a *temenos* is by its nature in a sense *hieron*; indeed one can use the expression *hieron temenos*, as Aristophanes does in *Lysistrata* 483, speaking of the ἄβατον ἀκρόπολιν, the precinct of Athena. But the *temenos* tends to have the wider meaning; it may include the *hieron* (N.B. Herodotus ii. 112). In our inscription the *temenos* is treated as an appendage of the *hieron*, in the same kind of relation as the *kepos* to the *heroon* in the new *misthosis* decree mentioned below. One notes that the *hieron* is twice said to belong to all three deities, the *temenos* to Neleus and Basile alone.⁷

Xenophon, *de Vect.* iv. 19, says μισθοῦνται γοῦν καὶ τεμένη καὶ ἱερὰ καὶ οἰκίας; some commentators have bracketed καὶ ἱερὰ, but one need not do so; it may be simply that Xenophon's language is comprehensive and repetitive. The inscribed *misthosis* decrees vary in their use of the words. Generally the ground to be let is called *temenos*; but note particularly *IG* ii². 2499, in which his *orgeones* lease the *hieron* of Egretos to Diognetos, 'to use the *hieron* and the houses built in it'. *Temenos* does not occur;⁸ in fact *hieron* appears to be used in two different senses, one more extensive, one very restricted. The lessee is to take care of the trees growing in the *hieron*; and when the *orgeones* sacrifice to the hero he is to place at their disposal the *oikia* in which the *hieron*—presumably in this case a little chapel—is situated.

The leasing of sacred precincts is discussed by Aristotle, *Ath. Pol.* 47. 4. There are a number of epigraphical references to the practice and several *misthosis* decrees, some of which were passed by corporations of *orgeones*.⁹ All are a good deal later than *IG* i². 94. To those given in *IG* may be added an interesting specimen found and published recently,¹⁰ and dated 333/2 B.C., in which 'Charops of Phaleron and the *orgeones* of the *heroon* let the garden to Thrasyboulos of Alopeke at twenty drachmas a year for thirty years' (an unusually long period); the lessee is to bear the expense of a stele and to set it up in the *hieron*. The stone was found in Euripides Street on the

⁵ Cf. A. B. Cook, *Zeus* iii. 60.

⁶ Cf. Harpokration ἀπὸ μισθωμάτων (from Isokrates, *Areop.* 29). Such plots would form a kind of endowment for the cult. No doubt this ground was allotted when Neleus and Basile alone were there, and continued to be thought of as their property; Kodros was simply given a niche in the shrine.

⁷ Curtius equates *hieron* and *temenos* in his plan; Judeich is not clear on this point (see p. 64). Jane Harrison says that the clause concerning the water-area 'gives the boundaries of the sanctuary', which is surely not right (see p. 64). Some editors have confused the issue by printing in line 4 τὸ ἱερὸν τὸ Κ. καὶ τὸ Ν. καὶ τῆς Β. There can be little doubt that only the first τὸ is neuter accusative, the second and third being genitive, as is τῆς (Roberts and Gardner

obscure this difficulty by printing τοῦ). See also comment on line 7.

⁸ Perhaps there was no piece of ground of any great extent to be cultivated, merely the shrine with certain buildings (usable except for the inner sanctum, the *hieron* in the narrower sense) and a few trees about the place.

⁹ See Ferguson, *The Attic Orgeones* (n. 2 above) 79 ff. Ferguson notes that letting was evidence of thrift and good management, not financial distress. On *misthosis* of shrines generally see O. Schulthess in Pauly-Wissowa s.v., col. 2099; *IG* i². 377 (at Delos); ii². 1672, lines 242 ff.; ii². 2492 ff.

¹⁰ P. G. Ballinda and N. I. Pantazopoulos, *Πραγματεῖαι Ἀκαδ. Ἀθηνῶν* xiii (1948) 5 ff.; cf. J. and L. Robert, *REG* lxiii (1950) 148, and A. Papagiannopoulos-Palaios, *Polemion* iii (1948) 128.

northern edge of the ancient city. Mr. Papagiannopoulos-Palaios notes that *IG* ii². 839 and 840, relating to the cult of the Heros Iatros, were found near the same place, and suggests that the *heroon* of the new inscription may have been that of the Iatros.¹¹

Line 7. The plural *hiera* must have some significance. The shrine was apparently complex, containing two cult-spots (possibly three, though this is not so likely)—of Neleus and Basile, and of Kodros, which could be thought of separately and demarcated, as well as being called collectively the *hieron*. In lines 27–28 Neleion is commonly taken to be an abbreviated name of the whole sanctuary; but the language of the decree is precise and the use of the name has more point if it refers to the particular cult-spot of Neleus (otherwise one might expect ‘in the *hieron*’, or ‘beside the *ikria*’, alone), and so helps to define just where the stele is to be set up.

Lines 20–22. It appears that there was a ditch to gather the water from the area defined below and convey it to the *temenos*; and that mud from it was sold, to enrich the ground of the buyer, separately (cf. *IG* ii². 2498, line 9). Ziehen is wrong in saying that the ditch was ‘in fano’.

Lines 24–25. The record would perhaps be on a γραμματεῖον λελευκωμένον as stated in the *Ath. Pol.*, especially since it was subject to erasure and substitution.

One wonders what the wall was on which the notice was placed. It can hardly have been the *peribolos* of the *hieron*, since this was presumably dilapidated or non-existent and awaited construction by the lessee. It was an obvious and important structure since it is called simply ‘the wall’.

Perhaps it was the wall of a small temple. That Basile had a temple, at least at a later date, is suggested by Meritt’s convincing restoration of Agora I 4138, *Hesperia* vii (1938) 123, no. 25 (of 239/8 B.C.); lines 9–16 read:

[ἐπτεῖ]

[δὴ ἡ ἱέρεια] τῆς Βασίλ[ης¹⁵]

[καὶ οἱ ἱεροπ]οιοὶ οἱ χειρο[τονθέντες ἐπὶ]

[Ἀθηνοδῶρου ἐπ]αινοῦσιν τὸν ἄ[ρχιτέκτονα]

[καὶ κελεύουσιν π]έμψαι εἰς τῇ[ν πομπὴν τῶν]

[Παναθηναίων τήν] αὐτοῦ θυγατέ[ρα ὅτι τῆς ἐ]

[πιμελείας τοῦ ναο]ῦ καλῶς καὶ φ[ιλοτίμως ἐ]

[πεμελήθη] κτλ.

This fragment was found in the fill in a late pithos in the middle of the southern part of the Agora (M 15 on the grid); it records, if correctly restored, honours to an architect, recommended by the priestess of Basile and the *hieropoioi* for his work on the temple. The restoration is not, of course, beyond doubt. But the letters are inscribed *stoichedon*, 34 to the line; and ἱεροῦ is not possible in line 15.

Line 28. *Ikria* is surprising and puzzling. The word is used of comparatively flimsy and indeed temporary structures; one would expect something more substantial and permanent as the point of reference for the setting up of the stele. *Ikria* normally means wooden stands for spectators,¹² and it may be that the shrine had a modest construction of this kind for those assisting at its rites. There is no good evidence that *ikria* ever means fence, palisade, or balustrade, as

¹¹ If he is right, and if these inscriptions may be assumed to give an approximate indication of the site of the *heroon*, then the garden of the Iatros was in a similar position on the north side of the city to the olive-grove of Neleus on the south; and the school near the Iatros at which Aeschines’ father taught (Demosthenes xix. 249; not necessarily the

same as the school near the Theseion at which he served as a slave, xviii. 129) was in a position corresponding to the palaestra of Taureas.

¹² R. Martin has recently discussed these *ikria* in *Revue de Philol.* xxxi (1957) 76.

some commentators have suggested;¹³ and this sense is not appropriate here, especially since it is with the construction of a fence that the actual decree is concerned. R. P. Austin has shown¹⁴ convincingly that *ikria* can occasionally be used of constructional scaffolding, notably in *IG* i². 371, where it is a question of the erection of two large statues in the Hephaisteion. Structures of this kind, with upright timbers and horizontal planking, are similar in principle to the *ikria* used as grandstands. Austin believes that this is the meaning of the word in the present instance: that the *ikria* of the Neleion were used in construction and repairs, and that the stele was set up by the place where the material was stored. But one doubts whether a minor shrine, probably with no large buildings, would have such scaffolding permanently around, and, if so, whether the place where it happened to be kept would be a suitable site or point of reference. *Ikria* remains problematical; but perhaps it is best to adhere to the usual sense.

Line 33. The *temenos* must have been fairly extensive, since more than 200 olive trees could grow there. The minimum size can be approximately calculated from the instructions given by ancient authorities concerning the space required by olive trees.¹⁵ These vary to some extent, but taking an average one can perhaps assume a distance of 25–30 feet each way. The 9 feet quoted by Plutarch from a law of Solon (*Solon* 23. 6) refers not to the distance between trees but to the minimum distance from one's neighbour's land at which one can plant an olive. Curtius, besides making *temenos* coextensive with *hieron*, places his trees in lines along the four edges of a square, where he says they would secure the *Umhegung* of the shrine. But, apart from the fact that, as we have seen, *temenos* and *hieron* were not identical, he allows far too little space between the trees; and olive trees can hardly be said to form an effective barrier or fence. The trees were no doubt planted in rows in the usual pattern. Of course one must bear in mind that φύτευτήρια means olive *shoots*, which might be planted more densely, on the assumption that some might fail to grow or be transplanted. But the authors of the decree, concerned apparently with the promotion of olive-growing, would, one imagines, look to the future and seek to ensure a certain establishment of productive trees; in naming a definite figure they are likely to have had this in mind.

Lines 34–37. Of the four points which mark the limits of the catchment area only one, the Dionysion, can be plausibly located, but in spite of this the area can be approximately defined. Judeich probably gives it correctly, but when he speaks of 'eine starke Ausdehnung des Bezirks von N nach S'¹⁶ he seems to be confusing catchment area with shrine and *temenos*. The latter may have been included in the former, or it may have been outside it and distinct from it. The two were not coextensive. It would hardly be necessary to include in the decree special provisions to secure for the use of the *temenos* rain-water which fell within its own boundaries. Curtius, on the other hand, marked in blue on his plan a very large area extending even farther east to west than north to south, in fact as far as the Olympieion; the gate of the Mystai being on the lower slope of the Mouseion hill, below the monument of Philopappos, and the second gate

¹³ Dittenberger, who is quoted with apparent approval by Roberts and Gardner, says, 'Cancelli significari videntur, quibus delubrum a reliqua area separatur'. But this would presumably be part of the barrier to be constructed around the *hieron*. There are other words for such barriers—δρύφακτοι, κιγκλίδες. The regular characteristic which distinguishes *ikria* seems to be horizontal planking. It is used of decking in Homer (see LSJ); and Herodotus, v. 16, says with reference to lake-dwellings ἱκρία ἐπὶ σταυρῶν ὑψηλῶν ἐξευγμένα; here *ikria* actually means the floor-boards as distinct from the piles. On the other hand, *ikrion* in its rare use in the singular can apparently mean a single upright; it is used with reference to a cross (σταυρός; contrast Herodotus), and

possibly a mast (on the cenotaph of Thucydides; Marcellinus *Life* 31). See Frickenhaus in Pauly Wissowa s.v. *ikria*.

¹⁴ See n. 1. The other example which he gives is in *IG* iv. 39, in the temple of Aphaia at Aegina. Here his explanation is plausible, though not so clear as in *IG* i². 371; and he is hardly justified in assuming 'an addition to our knowledge in regard to a detail of the permanent equipment of certain Greek shrines and temples'.

¹⁵ See A. S. Pease in Pauly-Wissowa s.v. Ölbaum, col. 2006. The quality of the soil makes a considerable difference too.

¹⁶ 141 n. 1.

being just south of the Olympieion. But it is difficult to believe that the area was so big that the water from the major part of south-eastern Athens was diverted and concentrated on a minor *temenos*. Judeich is no doubt right in assuming a narrow strip running north to south; or a little east of south following the natural slope, in the direction of the place where our inscription was found. If so, the Dionysion is the shrine to which the theatre is attached.

One cannot say where or what the *oikia demosia* was; perhaps a house taken over by the state like the house of Poulytion¹⁷ and used for some official or religious purpose; one does not know of a public building or office in this quarter. Perhaps it was a short distance east of the theatre. The gates would be in the southern wall of the city, and probably not far apart. One does not know where the Mystai went to the sea;¹⁸ Phaleron would be the obvious place, and this text confirms it. The gate by which they drove out was probably the Diomeian Gate (see Judeich, Plan I, G 7), and the other one was possibly the Itonian Gate a little farther to the east, for which the chief evidence is provided by the pseudo-Platonic *Axiochus* (364d). Nothing more is known of the Bath of Isthmonikos; apparently a position near a city gate was favoured for bathing establishments; the remains of one have been found at the Dipylon,¹⁹ and *IG* ii². 2495 mentions one in association with the gate of Diochares on the east.

The ditch probably ran from the neighbourhood of the theatre—the water which was drained from the theatre may have contributed—down to the gates and eventually to the Ilissos. Some modern authorities still place the Marshes, from which the shrine of Dionysos ἐν λίμναις took its name,²⁰ in this region; but the question of the Dionysion ἐν λίμναις is still quite unsettled.

Where in all this was the shrine with its *temenos*? In the middle of the water-area, says Curtius, most probably on the terrace on which the military hospital stands; a stump of a column and a fragment of mosaic, to the south-west, may belong to the palaestra of Taureas. More reasonably, Judeich in his plan pushes the site tentatively farther south. Surely one would expect the land which was to receive the benefit of the water to be at the lower end of the slope, at or even beyond the southern end of the catchment area, adjacent to the wall and the gates, either inside or outside. There is no reason why the *temenos* should not have been outside the city,²¹ which would place it, appropriately, in the neighbourhood of the quarter called Kepoi, and allow more space for an olive grove than within. A strip of ground stretching down from the two gates to the river would be suitable in size and location.

In this region too, on the right or northern bank of the Ilissos, we are not far from the place which was pointed out to Pausanias (i. 19. 6) as the scene of Kodros' legendary death. It may be that this spot was closely associated with the shrine. Others say that Kodros was killed by the Peloponnesians 'outside the gate in front of the city' (Lycurgus, *Leocrates* 86); or 'in front of the wall' (Bekker, *Anecd. Gr.* i. 192. 32 ff.). Judeich confidently syncretizes not only shrine and battlefield, but also Kodros' burial-place.²² Pausanias is not helpful, except that one can make almost anything one wishes of this stage of his Athenian *periegesis*. There is no securely fixed point

¹⁷ Pausanias i. 2. 5.

¹⁸ Hesychios ὁλαθε μύσαι; Polyainos iii. 11. 2; *IG* ii². 847, line 20; cf. L. Deubner, *Attische Feste* 72. For the likely position of the gates see Judeich 141 and 142 and Plan I. A gate in the southern wall has been found by Meliades in Erechtheion Street, which runs a little east of south from the Odeion of Herodes (*Praktika* 1955, 43; cf. *AJA* lx (1956) 267); but this, like Curtius's suggested gate, would seem to be too far west in relation to the Dionysion and the finding-place of *IG* i². 94. J. Travlos's forthcoming plans of Athens will supplement and correct Judeich on the line of the wall and the position of the gates.

¹⁹ G. Karo, *An Attic Cemetery* 24.

²⁰ Curtius, Gardner, Austin (see n. 1). For recent discussions of the site of Limnai see Pickard-Cambridge, *Dramatic Festivals* 19, and Gomme, *Thucydides* ii. 52.

²¹ In that case too Plato's Palaestra of Taureas would be in a precisely similar position, just outside the south-eastern gate, to that of the palaestra which is the scene of the *Lysis* (203a–b), just outside a gate which must have been in the north-eastern section of the wall.

²² p. 387, 'Dieses Kodrosheiligtum wird gleich sein mit seiner Todesstätte, die bald vor den Toren der Theseusstadt, bald am Ilisosufer erwähnt wird, und seiner Grabstätte'. Roberts and Gardner too take this view.

between the Olympieion (with the Pythion) and the stadium. The sequence is: the Gardens and Aphrodite, Kynosarges, Lyceum, Nisos, the Ilissos, with Oreithyia and the Ilissian Muses, Kodros, Agrai and Artemis (across the river), stadium. We have only the course of the river to guide us. Of the two great gymnasia, the site of the Lyceum is still not certain and that of Kynosarges still highly problematical. Pausanias covers a wide area sketchily, and appears to range back and forth disconcertingly.²³ But on the whole one is left with the impression that with Kodros he is back at the river at a higher point than before. He has dealt with the Olympieion and neighbouring shrines, and with the Kepoi, at an earlier stage, without mentioning Kodros, Neleus, and Basile. Perhaps the shrine no longer existed in his time.

Judeich is on even more uncertain ground in associating the grave of Kodros with the shrine. *IG* ii². 4258 is against this. The inscription is on a base found in a house near the monument of Lysikrates, and is of the time of Augustus. It begins, 'This is the fall of Kodros . . .', meaning not 'This is where Kodros fell', but 'This monument represents the death of Kodros'; and it continues, 'His body the people of Athens took and buried beneath the Acropolis'. In a very general way the shrine might be said to be 'beneath the Acropolis', which towers up above the Ilissos bed; but one might say the same of a very large part of the city of Athens. One expects the phrase to have a more precise meaning, as it does when used of the Eleusinion, on the immediate north-west slope. The grave may have been near the finding-place of *IG* ii². 4258. The places associated with Kodros seem to have been in the south-eastern part of the city and suburbs; that is all one can safely say. Perhaps the location of the *Todesstätte* and the grave helped to suggest Kodros' installation in the shrine of Neleus and Basile.

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²³ Judeich finds no difficulty in Pausanias' account, but does not explain it (387 n. 6). Jane Harrison, who, like Judeich, identifies *Todesstätte* and shrine, suggests that Pausanias was indeed farther north-east and upstream at i. 19. 6, where he mentions Kodros, but that his guide merely waved his hand downstream and said that somewhere down there Kodros was killed. This is trying to have it both ways. One should, I believe, normally assume that, except in clear digressions, when he mentions a place or monument Pausanias thinks of himself as actually on the spot. And the more one learns from the finds, at Athens and elsewhere, about his procedure, the more convinced one feels that his work is built up throughout on successive topographical sequences, even where he covers the ground jumpily and his account is correspondingly sketchy. I hope to discuss the topography of his chapter 19 further in connexion with the gymnasia. In covering eastern and south-eastern Athens, I believe, he first deals with a series which hangs on to the Olympieion and takes him across the Ilissos south-west to Kynosarges; then he transfers himself to the Lyceum, outside an eastern gate—as G. Daux well shows in *Pausanias à Delphes*, he likes to take any opportunity of making a transition which has a logical as well as a topographical character—and from the Lyceum he makes a wider, more easterly sweep, on a longer radius from the centre of the city, across the Ilissos again to the stadium and Agrai.

For the all-important gymnasia there is a little further

evidence (post-Judeich) which tends, though by no means decisively, to confirm their sites in the regions indicated above. E. Vanderpool has made a careful new study of the 'boundary of the garden of the Muses', *IG* ii². 2613 (in *AE* 1953-4 (1957) 126 ff.), and slight remains which may belong to Theophrastos' 'little stoa' (see Diogenes Laertius v. 51) have come to light in Syntagma. For Kynosarges we have a relief with a dedication to Herakles found south of the Ilissos and published by D. M. Robinson in *Hesperia* xvii (1948) 137 ff. (cf. Mitsos in *Polemon* iv (1949) 32, no. 27); and a series of inscriptions published by Karouzos in *ADelt* viii (1923) 85 ff. (not in Judeich; cf. *SEG* iii. 18 and 115-17; Papagiannopoulos-Palaaios, 'Αρχ. Έλλ. Έπιγρ. 73, no. 12). Three of these are possibly concerned with the Herakleion, and were found south of the Ilissos just south of the Fix brewery, which may well be near the site of Kynosarges. The other was found a little south of the monument of Lysikrates; it is of the late fifth century, and gives part of a decree concerned with tanning. Skins are not to be treated in the Ilissos above the *temenos* of Herakles (i.e., no doubt, Kynosarges); a stele inscribed with the decree is to be set up 'on either side' (i.e. of the river, no doubt at the place above which these operations could not be carried out, and so near Kynosarges). A likely location for the point in question would be just to the south of the city, clear of the immediate suburbs and downstream from Kallirrhoe and the various shrines near the river in this neighbourhood, and the Kepoi.

PREHISTORIC LACONIA: PART I

(PLATES 15-24)

THIS survey (Part II of which will be published shortly in the *Annual*) includes all Laconia, as far as the ancient borders with Messenia and Arcadia, the Thyreatis, and the islands of Kythera and Antikythera. Most of the results have been established by surface research alone, in 1936-8¹ and 1956-8.² Little was previously known about the distribution of prehistoric³ sites in Laconia, and few settlements have been excavated.⁴

Much of Laconia is either mountain or hill country. The ranges of Taygetus and Parnon form the bones of the province, while between them the Eurotas flows through the fertile alluvial plains of Sparta and Helos⁵ down to the Laconian Gulf. The Spartan plain, the central Eurotas valley, is bounded to the north by broken hill country, to the west by the great mountain wall of Taygetus (PLATES 15*a* and the map, PLATE 24), spurs of which also enclose it on the south, and to the east by the great Parnon range. It is one of the most fertile plains in Greece, and must at all times have been able to support a considerable settled population.

Abbreviations in addition to those ordinarily used in the *Annual*.

Asea = Holmberg, *The Swedish Excavations at Asea in Arcadia* (1941).

Asine = Frödin and Persson, *Asine* (1938).

Chambers Tombs = Wace, *Chamber Tombs at Mycenae* (*Archaeologia* 82).

ChronMP = Furumark, *The Chronology of Mycenaean Pottery* (1941).

Documents = Ventris and Chadwick, *Documents in Mycenaean Greek* (1956). P.T.O.

¹ Without the inspiration, constant encouragement, and support of the late Professor A. J. B. Wace this work could not have been attempted. I am indebted to Cambridge University, and in particular to Girton College, for generous moral and financial support. May I here record my thanks also to the friends who braved the discomforts of Laconian travel to assist me (and to Miss Benton also for taking the photograph of the vases from Vaskina to be shown in Part II), and to the many Laconians who gave generously of their hospitality, time, and information; particular mention must be made of Messrs. I. Karavitis, Mayor in 1938, and P. Sykakis of Palaiochori, the Gymnasiarch and Mr. A. Katsingri of Leonidhi, Dr. Lyras and his family at Daimonia, and Mr. N. Collins (Kollivopoulos) of Neapolis, Vatika. The staff of the National Museum in Athens helped in the search for obscure inventoried items with their usual courtesy and patience.

It will be clear also, from a comparison of this Report with the relevant sections of the table in *BSA* li (1956) 170 f., how much new material has been added by Mr. Hope Simpson; he has, in addition, carried out the greater part of the final preparation of the Report. (H. Waterhouse.)

² I would like to express my gratitude to Mr. M. S. F. Hood, Mr. Ch. Christou the Ephor of Laconia, Professor and Mrs. John L. Caskey, Miss Betty Courtney, and Dr. O. W. von Vacano; and to friends in Laconia, particularly the staff of the Sparta Museum, the Demarch of Gythion, Mr. Petrocheilou the head of the Gymnasium at Kythera, Mr. Koroneas of Phoenixi, the Proedros of Elaphonisi, Mr. Maniatakos of Vezani, and Mr. Philippas Samios of Mitata, Kythera.

The work was carried out with the aid of the School Studentship (held in 1955-6 and 1956-7) and of a grant from the Oxford Craven Fund. I was assisted in the field by

Mr. David French in autumn 1956 and spring 1957. Mr. J. N. Coldstream gave invaluable help with some of the photographs of the pottery, and most of the drawings were made by Mrs. G. L. Huxley or by my wife. Miss Lucy Talcott and Miss Virginia R. Grace gave information concerning the post-Mycenaean pottery from Kythera and Antikythera, and Mrs. D. French has added a detailed description of the Mycenaean figurine from Lekas. My greatest debts are to the late Professor A. J. B. Wace, who first suggested that I should complete the survey of Prehistoric Laconia; and to Mr. and Mrs. W. B. Wiegand, of Connecticut, U.S.A., upon whose support and generosity the work has very largely depended. (R. Hope Simpson.)

³ The term 'prehistoric' is here used arbitrarily to describe all periods up to the end of the Mycenaean Age, and does not reflect any particular view as to when 'Greek History' may be said to have begun (cf. Wace, in foreword to *Documents*. B.B.C. listeners may remember a series of talks on this subject in 1958-9).

⁴ The situation was summed up by Wace in *BCH* lxx (1946) 629; and again by Mrs. Waterhouse in *BSA* li (1956) 168-71. The first Mycenaean discoveries in Laconia were made by Tsountas, who excavated the tholos tombs at Vaphio and Arkines (both published in 1889) and Kambos, and began work on the early settlement at the Amyklaion. During the first decade of this century members of the British School at Athens made a detailed study of the classical topography of Laconia. Earlier travellers, in particular Leake, the *Expédition Scientifique de la Morée*, Curtius, Bursian, and Philippson, also studied the district in greater or less detail.

⁵ The produce of the Spartan plain (mainly olives, oranges, and corn) and of the Helos plain (cotton) is still the basis of the Laconian economy.

The lower Eurotas valley and the maritime plain of Helos is second only to the Sparta plain in importance. Near the sea the plain is a sand waste, in the centre the cotton marshes; and farther inland the hills enclose small fertile valleys, watered by springs. To the west the plain is bordered by the Vardhounia hills, while eastward it terminates against the prominent Mount Kourkoulia (PLATE 15c), spurs from which run right down to the sea.

South Mani (known as Mesa Mani), the western peninsula stretching from Gythion and Oitylos to Cape Tainaron, is conspicuously dry and barren.⁶ It is divided by the sharp southern spine of Taygetus (PLATE 15b), offshoots from which run down to the sea and make communications difficult. The large number of medieval churches in Mani suggests that in medieval (and, *a fortiori*, earlier) times the district supported a larger population than now, and progressive deforestation may be responsible for much of its present desolation.⁷ To Northern (or Upper) Mani belongs the Taygetus district comprising, from south to north, the wooded ranges of the Vardhounia hills, the west coast from Oitylos to Kalamata,⁸ the delightful well-watered cantons behind the precipitous crags above the Spartan plain, and the upper valley of the Eurotas as far as the borders of Arcadia (Mount Chelmos).

The north-east central district of Laconia, except for the area round Arakhova and Ayios Petros, is wild country, with little but prickly scrub and olives. Farther south, the small valleys near Chrysapha and Goritsa, and the neighbourhood of Geraki (where there are fine olives and valonia oaks), are more fertile.

Kynouria is geographically and traditionally distinct from the rest of Laconia. It is cut off from the interior and split into small isolated districts by hill ranges as barren as any in the Peloponnese. The only really fertile areas are the coastal plains of Tyros and Leonidi. Except near the coast, travelling from north to south is difficult, and there is no safe anchorage between Astros and Tyros, or between Tyros and Leonidi; while the two southern harbours, Kyparissi and Zarax, are hardly accessible by land at all. There are only three routes from Kynouria to the west; high passes from Kastanitsa to Vamvakou, from Platanaki and Palaiochori to

Ergon = Τὸ ἔργον τῆς Ἀρχαιολογικῆς Ἑταιρείας.

Eutresis = Goldman, *Excavations at Eutresis in Boeotia* (1931).

Frazer = Frazer, *Pausanias' Description of Greece* (1898).

Gournia = Boyd Hawes, *Gournia* (1908).

Korakou = Blegen, *Korakou* (1921).

Leake, Morea = Leake, *Travels in the Morea* (1830).

Leake, Peloponnesiaca = Leake, *Peloponnesiaca: A Supplement to Travels in the Morea* (1846).

Malthi = Valmin, *The Swedish Messenia Expedition* (1938).

Mochlos = Seager, *Explorations in the Island of Mochlos* (1912).

MP = Furumark, *The Mycenaean Pottery* (1941).

Mylonas, N. 'Ε. ἐν 'Ε. = Mylonas, *Νεολιθική Ἐποχή ἐν Ἑλλάδι*.

PM = Evans, *The Palace of Minos*.

Palaikastro = Dawkins, *The Unpublished Objects from the Palaikastro Excavations* (BSA Suppl. 1).

Prosymna = Blegen, *Prosymna* (1937).

Protogeometric Pottery = Desborough, *Protogeometric Pottery* (1952).

PT = Wace and Thompson, *Prehistoric Thessaly* (1912).

Pseira = Seager, *Excavations on the Island of Pseira* (1910).

SMC = Wace and Tod, *A Catalogue of the Sparta Museum* (1906).

Stais, NM = Stais, *Mycenaean Collection of the National Museum* vol. ii (1926).

Tiryns iv = Müller, *Tiryns iv* (1938).

Tsountas = Αἱ Προϊστορικαὶ Ἀκροπόλεις Διμηνίου καὶ Σήσκλου (1908).

Valmin = Valmin, *La Messénie ancienne* (1930).

Weinberg, Corinth = Weinberg, *Remains from Prehistoric Corinth*, in *Hesperia* vi (1937) 487-524.

Zygouries = Blegen, *Zygouries* (1928).

⁶ With the exception of the Vardhounia plain and the valley in which lies the kastro of Passava on the east, and on the west the fertile plateau between Mezzapo and Gerolimena. A good account of the Mani has recently been written by Patrick Leigh Fermor (*Mani*, 1958).

⁷ The village of Kitta, which once had about 1,000 inhabitants, now has under 100; while the population of Lagia, another formerly prosperous village, in spring 1957 numbered 14 souls, including 6 policemen.

⁸ This area has already been dealt with in *BSA* lii (1957).

Tsitsina and Chrysapha, and from Kosmas to Zaraphon or Geraki. The real connexions of Kynouria must always have been by sea, with Attica and the Argolid.

The south-east peninsula, which ends in the infamous Cape Malea, also forms a geographical unit, cut off from the north by difficult country. Much of it consists of bare limestone hills, waterless and inhospitable, but these are interspersed with cultivable plains, especially that north of Apidia, and the Molaoi and Vatika plains.

Apart from the rocky and wooded heights of Taygetus⁹ and Parnon, the hill country of Laconia is mostly composed of 'Tripolis' limestone or crystalline schist.¹⁰ Almost all the country east of a line from Chrysapha through Geraki and Apidia to Molaoi is made up of this stone; and only in the few places where the rock is overlaid or replaced by some other formation, in the alluvial plains of Tyros and Leonidi for example, or the pockets of schist or slate at Kosmas and Palaiochori, has there been any continuous settlement. Hard limestones make up almost all the Mani, large areas of the north-east, and the eastern half of the Malea peninsula; all of which districts were probably sparsely inhabited in antiquity, as today.

Since much of Laconia is unsuitable for cultivation by a settled population, it is not unnatural to find that the Neolithic and Bronze Age peoples lived mainly in those areas which have been subsequently the most thickly settled. It is noticeable that a large number of the prehistoric settlements in Laconia, and indeed the remainder of Greece, are on the patches of marl or conglomerate¹¹ (particularly the former)¹² which lie on the edges of the alluvial plains or on outcrops among them; and in particular the distribution of the prehistoric centres on the coast agrees closely with that of the later (classical) harbours.¹³

Unlike the classical topographer, the prehistorian in Laconia has little to guide him but the unchanging physical features of the country. Clues abound in ancient myth and tradition, but their value and interpretation are alike extremely uncertain. The Homeric poems are a source of real value, and, as will appear below, most of the Laconian cities mentioned in the *Iliad* and *Odyssey* have been identified with more or less certainty. It is perhaps also worth remarking how faithfully the character of the Eurotas valley is reflected in the Homeric epithets for Lacedaemon.

Pindar refers only to the obvious myths of Laconia. It is interesting that to him Therapnae is the home of the Tyndarids (*Pyth.* xi. 63; *Nem.* x. 56-57; *Isth.* i. 31-32), while the Pelopids are connected with Amyklai (*Pyth.* xi. 32; *Nem.* xi. 34) as well as Sparta (*Nem.* viii. 12).

Herodotus is the earliest authority for the supposed presence of Phoenicians—possibly the not uncommon misnomer for Minoans—in Kythera (i. 105), where they were the reputed founders of the temple of Aphrodite; and for the autochthonous character of the Kynourians, who 'δοκέουσι μοῦνοι εἶναι ἄλωες' (viii. 73). To attempt to explain the obscure story (iv. 145) of the Minyans from Lemnos who settled on Taygetus is outside the scope of this survey.

It is, of course, in Pausanias that the early traditions about Laconia are most fully preserved and detailed histories of individual towns are given; the latter, where relevant, are dealt with below under the sites concerned. Attempts have been made to extract information about pre-Dorian ethnology and folk-movements from the introductory chapters of Pausanias's Book iii, but these attempts are unconvincing, Pausanias is an indispensable companion for a field worker, but hardly a guide for discovering prehistoric settlements.

⁹ On Taygetus there are varieties of beautifully coloured marble, and Laconia also boasts the famous dark-green Lapis Lacedaemonius (pp. 105 ff. below) and the purple Antico Rosso.

¹⁰ Philippson, *Geologische Karte des Peloponnes* (1891) Blatt iv.

¹¹ Loc. cit. (called 'Neogen-Mergel und Sand' or 'Neogen-Conglomerat').

¹² From north to south: Pellanes, Vrontama, Lekas, Asteri, Mavrovouni, Epidaurus Limera, Goulas (Plitra), Daimonia, Neapolis, Elaphonisi. The same conditions occur in south Messenia (at Thouria, Karteroli, and Kardamyle), and also in the Pylos area, western Elis, and Corinthia.

¹³ i.e. Tyros, Leonidi, Epidaurus Limera, Neapolis (Vatika), Plitra, Elea, Helos, Gythion, Kotrones, Kyprionon, Mezzapo, Oitylos, Kardamyle, and Kalamata.

THE SPARTAN PLAIN

The heart of Laconia, and the centre to which all routes converged¹⁴ was, in antiquity as now, the Spartan plain.¹⁵ It is surrounded on all sides by mountains or hills (hence the Homeric description 'hollow Lacedaemon', *Il.* ii. 581). On the south-west is the steep outer range of Taygetus, on the north-west are the foothills of Taygetus extending to the site of classical Sparta, and on the north-east the red cliffs below the site of the Menelaion, immediately overlooking the Eurotas;¹⁶ while to the south and south-east the hills of Lykovouni and Vardounia rise more gently from the edge of the plain (FIG. 1).

In the centre of the plain a line of low undulating hills¹⁷ stretches from Ayia Kyriaki (the site of the Amyklaion) on the north to Ayios Vasilios on the south. This chain roughly divides the Spartan plain into a western belt, of alluvial soil washed down from Taygetus, and a narrower eastern belt, of river silt from the Eurotas. The most prominent hills in the chain are the sites of the Amyklaion, Palaiopyryi (Vaphio), and Ayios Vasilios.

CLASSICAL SPARTA

The prehistoric remains found on or near the site of Classical Sparta are exceedingly few, and all of the latest Mycenaean period.¹⁸ In the excavations of 1926-7 on the acropolis about twenty-five L.H. III sherds were found, in a dark deposit between the south wall of the sanctuary of Athena Chalkioikos and the back wall of the cavea of the theatre.¹⁹ This deposit appeared to have been an imported filling containing objects of different dates.²⁰ To south-east of the acropolis, not far from the city walls, a fragment of a L.H. III stirrup-vase was discovered, on the site of the present sports ground,²¹ and in 1957 a few other Mycenaean sherds on the same site.²² Since classical Sparta has been continuously built on since Mycenaean times, it is not surprising that we have so little evidence of Mycenaean occupation here; but nevertheless the lack of finds earlier than L.H. III, and the paucity of these, tend to indicate that the settlement was not important, while it seems likely that there was in fact no prehistoric settlement before L.H. III.²³

At the sanctuary of Artemis Orthia a few Mycenaean gems were found,²⁴ but these were not considered sufficient to prove the existence of a Mycenaean sanctuary there.²⁵

¹⁴ The main routes were: (a) From Arcadia via Megalopolis or Tegea (*JHS* xv (1895) 36 ff.). (b) From the east coast via (1) Astros and Ayios Petros, (2) Leonidi and Palaiochori (*Frazer* 305-10, esp. 307), (3) Leonidi-Kosmas-Geraki, (4) Monemvasia and Molaoi. (c) From the south coast via (1) the Eurotas valley, (2) Gythion and the Vardounia river. (d) From the west coast across Taygetus via (1) the Langada Pass, (2) Giannitsa and Anavryte, (3) Kardamyle-Arkines, and to Goranoi or Xerokambi (*BSA* xvi (1909-10) 66 f.).

¹⁵ The plain is well described by Leake, *Morea* i. 128 f.

¹⁶ *BSA* xvi (1909-10) 5.

¹⁷ Leake, *Morea* i. 135 f.

¹⁸ The three Neolithic stone idols and the two stone vases said to have been found in the neighbourhood of Sparta (Wolters, *AM* xvi (1891) 52 f.) cannot be included as finds from classical Sparta, where one would not in any case expect Neolithic occupation. It is more likely that they came from Kouphovouno 2 km. to south-west of modern Sparta (see pp. 72 ff.). They appear to be a homogeneous group, and are certainly genuine (Wace, *AJA* suppl. viii

(1949) 423 f.). They are now in the National Museum, Athens (Inv. nos. 3929-31, 3949, 3979).

¹⁹ *BSA* xxviii (1926-7) 38 f., 79, and pl. 5. T. C. Skeat, *The Dorians in Archaeology* (1934) 31, n. 4, dismisses the sherds as non-Mycenaean. But, apart from the categorical statements made by the excavators, the mention of buff slip and red glaze as well as of two kylix stems in the group should be sufficient to allay such doubts.

²⁰ *BSA* xxviii. 38; xxvi. 249-52.

²¹ *BSA* xlv (1950) 298, fig. 19. From the shape of the spout and the decoration it appears to be L.H. IIIB.

²² *JHS* lxxviii (1958) suppl. 10.

²³ Dawkins, in *BSA* xvi (1909-10) 5, commented that after five years of work at the site of classical Sparta nothing Mycenaean had been found except a single gem from the sanctuary of Artemis Orthia.

²⁴ *Artemis Orthia*, index s.v. 'Mycenaean Gems', and esp. 378 f. The most interesting are fig. 144e and f, fig. 146, and pl. 204, B.1, B.2, C.1, C.2.

²⁵ Op. cit. 248.

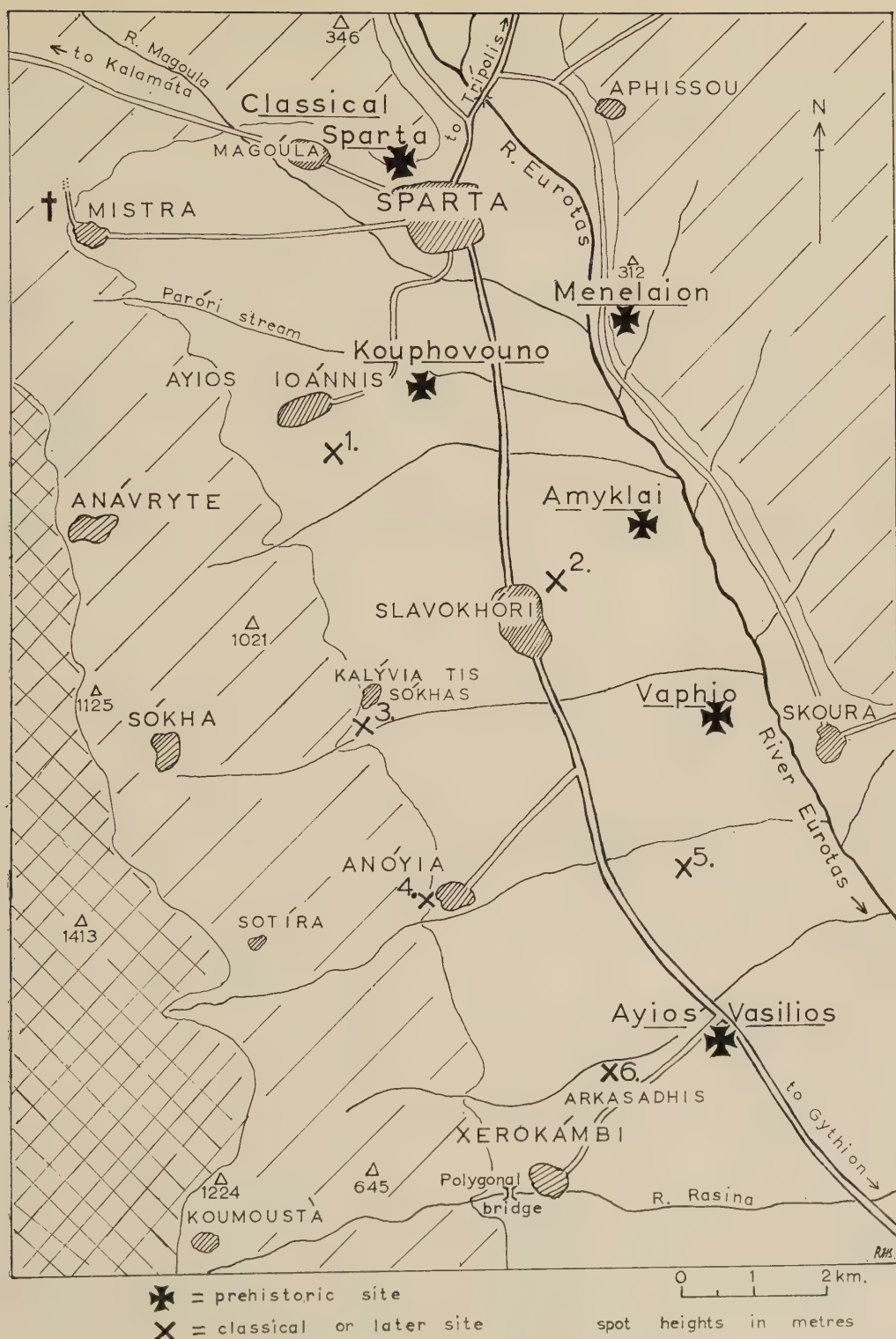


FIG. 1. MAP OF THE SPARTAN PLAIN

THE MENELAION

The shrine of Menelaus and Helen²⁶ towers high above the Spartan plain, close to the east bank of the Eurotas and overlooking classical and modern Sparta and the medieval capital at Mistra. Dawkins²⁷ said that the whole area of the 'elevated triangle' formed by the narrow ridge of the Menelaion was covered with Mycenaean houses. Pottery and other objects were recorded by Tsountas²⁸ over an extent of 150 metres to the south of the chapel of Prophetes Ilias (marked 'Ayios Ilias' on FIG. 2), but his trial trenches did not reveal walls, perhaps owing to the lack of depth of soil and the modern cultivation. In fact Mycenaean sherds and traces of stone and mud brick walls can be made out for an extent of about 500 metres to the south of the Menelaion, but not on the southern part of the triangle.

The Mycenaean house partly excavated by the British School in 1910²⁹ lies at the extreme north-east of the site. The pottery was said to be uniformly of the latest Mycenaean period,³⁰ while Furumark dates some of it L.H. IIB³¹ and some L.H. IIIB.³² Of the sherds illustrated, however, a few might be L.H. IIIC.³³ A certain importance seems to be indicated by the seal impressions,³⁴ but the extreme thinness of the ridge seems to preclude the existence of a large building here. The Mycenaean house was destroyed by fire during the L.H. IIIB-C period,³⁵ and thereafter the site seems to have been abandoned, until the time of the foundation of the 'Menelaion', apparently during the Late Laconian Geometric period.³⁶

KOUΦOYOUNO

The site³⁷ lies about 2 kilometres to south-west of Sparta, a short distance to south-east of the road from Sparta to Ayios Ioannis.³⁸ The mound now appears as a low rise, hidden among the olive groves, standing only 6 or 7 metres above the surrounding fields. An area roughly 170 metres in diameter is strewn with prehistoric pottery and worked stones. Trial excavations by Dr. von Vacano³⁹ revealed Neolithic and Early Helladic houses and graves. The detailed results have not yet been published, but it is stated that, besides Neolithic and E.H. pottery, several worked flints, bone implements, stone hand axes, adzes, and hammers were found. To judge by the amount of sherds, celts, obsidian, and flints found on the surface in 1957, the settlement must have been intensively occupied in the Neolithic and E.H. periods, while its position, size,

²⁶ Excavation reports: Tsountas, *AE* 1889, 130-1; *BSA* xv (1908-9) 108-57 (the shrine); *BSA* xvi (1909-10) 4-11 (the Mycenaean house).

²⁷ *BSA* xvi, 5.

²⁸ Loc. cit.; cf. *BSA* xv (1908-9) 109-10. Tsountas, op. cit. 131, recorded two *querns*; and in 1957 part of a *hand axe* was found on the surface (PLATE 23c, 6). L. 0.10 m.; W. 0.045 m.; H. 0.053 m.; well polished and finely made. Possibly E.H. (cf. *Asine* fig. 175, 7, bottom right, and *Asea* fig. 115, 12), but the long shape and fine workmanship suggest L.H.

²⁹ *BSA* xvi (1909-10) 4-11.

³⁰ Op. cit. 5.

³¹ *ChronMP* 52, and *MP* 540. To L.H. IIB are assigned *BSA* xvi, pl. 2d, and some on p. 8, fig. 3 (the sherds with 'Myc. Flower', 'Net Pattern', and 'Foliate Band'). On the top left-hand corner of fig. 3 is a pattern similar to Furumark's 'Ogival Canopy' (Mot. 13), and this sherd is probably also L.H. II or L.H. IIIA.

³² *ChronMP* 70. To L.H. IIIB are assigned *BSA* xvi, pl. 1, and pl. 2a, b, and i.

³³ The two sherds with panelled patterns in *BSA* xvi, fig. 3, which resemble *MP* fig. 72, 29, might be L.H. IIIB or C; while the two sherds at the bottom of fig. 3, if not the product of a local eccentric, might also be L.H. IIIC (cf. *AM* lii (1927) 46, Abb. 26, from the Amyklaion).

³⁴ *BSA* xvi, 10, fig. 5.

³⁵ Op. cit. 11.

³⁶ J. M. Cook, *The Cult of Agamemnon at Mycenae* (Γέρας Ἀντωνίου Κεραμοπούλλου, 1953) 112-18, esp. 113-14; cf. *BSA* xv (1908-9) 114.

³⁷ *AA* 1942, 156. The site is wrongly spelled 'Kouphorouna' in *JHS* lxiv (1944) 82 and *BCH* lxx (1946) 629.

³⁸ FIG. 1. On the way to Ayios Ioannis, about 700 metres beyond a small tannery, is a concrete bridge over the stream Parori. The bridge is the third on the road from Sparta. About 120 metres beyond it, on the left of the road, is a tower of mud brick, where a track branches from the road past a farm. About 200 metres along this track is a fig grove, and the centre of the mound lies about 150 metres to the right, a little to west of the stream.

³⁹ *AA* loc. cit.



FIG. 2. THE MENELAION

and character suggest that it was the most important Neolithic site in Laconia.⁴⁰ A few L.H. III sherds were found, mostly on the edges of the settlement. The lack of M.H. or L.H. I–II may be accidental, but it would not be surprising if a low mound site such as Kouphovouno had been overlooked by the M.H. ‘invaders’.⁴¹

KOUPHOVOUNO: SURFACE FINDS 1957

NEOLITHIC

(Classified according to Weinberg, *Corinth*.)

(a) ‘*Variegated Ware*’ (Class I A)

Three thick sherds with dark-grey biscuit, from bases of open bowls, as Weinberg, *Corinth* 495, fig. 5a.

(b) ‘*Coarse Monochrome Ware*’ (Class I D)

Sherds exactly like *Asea* fig. 37b, and fig. 38e (lug).

(c) ‘*Red Monochrome Ware*’ (Class II A)

Three sherds from high conical bases, as *PT* fig. 40g (diameters 0.12–0.16 m.).

(d) ‘*Neolithic Urfirnis*’ (Class II B, unpainted)

Eight sherds, of well-fired clay, with orange-brown glaze (cf. Weinberg, *Corinth* fig. 8b, c, and e–j). Three are from straight rims, with profiles as op. cit. 502, fig. 13; one is from a carinated bowl as op. cit. 503, fig. 14a; and two are from bases, as op. cit. fig. 9.

(e) ‘*Neolithic Urfirnis*’ (Class II B, painted)

One sherd is from a rim (as op. cit. 502, fig. 13), and another has a linear pattern on the inside only. Both have dull black paint on a ‘glazed’ buff surface. Another has lustrous red paint on a polished pink ground (note the distinctions made by Weinberg, op. cit. 503).

The painted sherds should probably be grouped with the unpainted, as suggested in *Asea* 49, esp. n. 4.

(f) ‘*Grey Monochrome Ware*’ (Class II C)

Six sherds, all from carinated bowls, as Weinberg, *Corinth* 509, fig. 25a.

EARLY HELLADIC

(Classified according to *Zygouries*.)

(a) *Zygouries* Class A II

Three sherds from carinated bowls, as *Zygouries* pl. 7, 1;

2 sherds from *sauceboats*, as op. cit. pl. 9, 1 (‘faience ware’), cf. *Asea* 66 and *Eutresis* 99, fig. 127; 3 sherds from high and hollowed bases of *sauceboats* or small handleless bowls, as *Eutresis* 98, fig. 125, 3–5 and 7–8.

(b) *Zygouries* Class B II (‘*Urfirnis*’)

Five sherds from *sauceboats* as *Zygouries* fig. 79, 115, and fig. 80, 24; cf. *Asine* 206.

NEOLITHIC OR EARLY HELLADIC

Fourteen *celts* of *PT* Type A (*PT* p. 23). Four of these are illustrated on *PLATE* 23c, 1–4; (4 = *FIG.* 6, 1). The *celts* are long in comparison with their width (the length varies from 0.075 m. to 0.115 m.). They are of hard grey or grey-green polished stone. The blades and butts are worn by hammering.

PROBABLY EARLY HELLADIC

A *celt* of *PT* Type B (*PT* p. 23) illustrated on *PLATE* 10c 5 (= *FIG.* 6, 2). L. 0.04 m. W. 0.034 m. Thickness 0.012 m. Of hard black stone with light flecks. Well polished. Blade still sharp. Butt worn by hammering. Very like *Zygouries* pl. 22, 2.

NEOLITHIC OR BRONZE AGE

Two *pounders* and a *polisher*, of light green stone.

Obsidian. Many fragments, including several long blades and a core 0.06 m. long.

LATE HELLADIC III

Several fragments from plain and painted *Kylikes*, mostly of soft buff clay; and bases of *Deep Bowls* in the same fabric, with streaky monochrome paint.

THE AMYKLAION

The church of Ayia Kyriaki, built over the remains of the Amyklaion,⁴² lies on the northernmost hill of the chain (described above) which runs from north to south in the centre of the Sparta plain (*FIG.* 1). The Bronze Age settlement was mostly on the south-east slopes of the hill,⁴³

⁴⁰ It is conceivable that the existence of this settlement was one of the factors which gave rise to the tradition (Pausanias iii. 1. 1, 20. 2) of the Leleges, ‘the original inhabitants of Laconia’, who were located by Pausanias near Alesiae. It is a curious coincidence that there is a hamlet called Λέλε marked on a local map of Laconia (on sale in Sparta) a short distance north-west of Kouphovouno.

⁴¹ *Zygouries* 221.

⁴² Paus. iii. 18. 7–19. 6. Excavation reports: Tsountas, *AE* 1892, 1 ff.; Fiechter, *JdI* xxxiii (1918) 107 ff.; Buschor and von Massow, *AM* 52 (1927) 1 ff. Early finds: *SMC* 225–6, and nos. 693 (19), 794 A (1), 794 B (1) and (2), 796, 798 (1), and 802.

⁴³ Mycenaean sherds are also found on the lower spur which runs west from Ayia Kyriaki (see panorama in *JdI* xxxiii. 107, Abb. 1).

towards the river (about a kilometer distant). It was fairly extensive, although not half so large as the site at Palaioypyri (Vaphio) to the south.

The settlement was first established in the E.H. period, and thereafter continuously inhabited until the latter part of L.H. IIIC. The sanctuary may have been established in L.H. III,⁴⁴ and some of the Late Mycenaean 'votive offerings' were found in close association with Protogeometric material.⁴⁵ On the other hand, Desborough and Buschor both agree that the Amyklaion

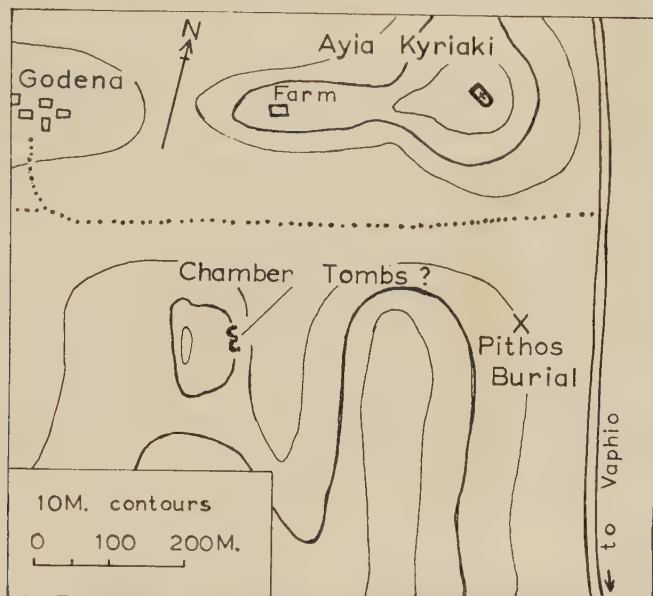


FIG. 3. SKETCH MAP OF THE AMYKLAION AREA

Protogeometric owes little to the preceding Mycenaean style, and this indicates the arrival of a new element.⁴⁶ Pausanias says that the site was laid waste by the Dorians after a stubborn resistance (iii. 2. 6; 19. 6). This suggests that it was walled in the L.H. III period, and indeed this naturally defensible hill could easily have been made into an acropolis capable of housing a small but determined garrison. Nilsson⁴⁷ assumes the existence here of a cult of Hyakinthos before that of Apollo, and it is possible that the story of the 'accidental' slaying of Hyakinthos by Apollo (Paus. iii. 19. 1-6) is a mythological reflection of the destruction of the Mycenaean city by the invading 'Dorians', and of the subsequent reconciliation.

PREHISTORIC POTTERY FROM THE AMYKLAION

EARLY HELLADIC

Incised, unslipped, slipped and polished, and painted wares were all found. There were specimens of *Zygouries* Classes A 1, A 2, B 2, including fine wares, especially sauceboats. Of special interest are the incised sherds (AM 1927, 5, Abb. 4) and the *sauceboat* fragments (op. cit. 7, Abb. 6).

MIDDLE HELLADIC

Several sherds of *Black (Argive) Minyan*, including incised fragments (AM 1927, Abb. 1, 2, and 3); a few *Grey Minyan* and *Matt-painted*, and *light-on-dark* (op. cit. Beil. i. 5); and a large portion of a vase in dark matt paint with patterns in added white (op. cit. Beil. i. 1).

⁴⁴ There is no definite proof, since it is not clear that the terracottas were found in a votive deposit; but the female *figurines* are all of Psi type (cf. the majority at Delphi), and the large wheel-made *animals* are suggestive.

⁴⁵ AM lii (1927) 10; *Protogeometric Pottery* 284.

⁴⁶ *Protogeometric Pottery* 290; AM loc. cit.

⁴⁷ *The Minoan-Mycenaean Religion* (1950) 470 f., 556 ff.

LATE HELLADIC

L.H. II 'Palace Style' sherds (*SMC* no. 798 (1) *a*, and 802, cf. p. 222); and a fragment illustrated here (PLATE 4c, 1) from a closed shape.

L.H. III. Many sherds and figurines (*AE* 1892 and *AM* 1927). The sherds are chiefly L.H. IIIB (e.g. *AM* 1927, Beil. vi, 4 and 7).

L.H. IIIC. '... also a few sherds, among which is a

beautiful piece in the Close Style, and one or two which go with the very late provincial Mycenaean as found in Kephallania, Achaea, and Messenia' (*Protoegeometric Pottery* 284). Mr. Desborough and Mrs. Waterhouse have seen other *Close Style* sherds from the Amyklaion in the Sparta Museum before the war. The sherd illustrated in *AM* 1927, 46, Abb. 26, may be L.H. IIIB or C, and some of the animal figurines are probably L.H. IIIC (e.g. op. cit. Beil. vi, 11 and 13; and *AE* 1892, pl. 3, 1 and 1a).

TOMBS NEAR THE AMYKLAION

Tsountas said that he had found two rock-cut Mycenaean chamber tombs 'between Slavokhori and Ayia Kyriaki',⁴⁸ or 'to south of Godena and east of Machmud-Bey'.⁴⁹ The latter directions lead one to an area where there is neither rock nor high ground, both of which Tsountas specifies. There is, however, on a low hill about 500 metres south-east of Ayia Kyriaki a small barren plateau with a prominent ridge on its west side, and on the east an outcrop of soft limestone, into which two cuttings have been made, ostensibly the remains of chamber tombs (marked 'Chamber Tombs' on FIG. 3). There are a few L.H. III and later sherds on the plateau and to the east below it, while to south and south-east, between Ayia Kyriaki and Vaphio, the hills are formed of similar rock, suitable for chamber tombs.

About 150 metres south-south-east of Ayia Kyriaki, and 100 metres west of the track to Vaphio village, at the foot of the hill to west of the track, there were on the edge of a field some fragments of pithoi and human bones. The layout of these indicated a M.H. pithos burial (marked 'Pithos Burial' on FIG. 3).

VAPHIO AND PALAIOPYRYI

The hill of Palaiopyryi (FIG. 4, PLATE 16a, b) is the highest point in the chain of hills in the centre of the Spartan plain, and a conspicuous landmark. It is the centre of the largest prehistoric settlement in the Spartan plain, the settlement to which belongs the famous Vaphio Tholos Tomb (270 metres north-west of Palaiopyryi).

The tomb is now in ruins, with not a stone left in place, but the shapes of the dromos, doorway, and chamber are still unmistakable. Fortunately Tsountas' report⁵⁰ gives a detailed description of the tomb as excavated. It faces east, and has a fairly long dromos. Both dromos and chamber were built of smallish stones; in the chamber these are hammer-dressed, while in the dromos they are set in clay. The doorway was built of large dressed stones, and the joints covered with plaster. The tomb had been plundered, probably in Mycenaean times, but not thoroughly (scraps of amber and gold leaf were found in the dromos). On the floor of the chamber were some charred bones,⁵¹ together with sealstones, ornaments of gold, amethyst, and gold leaf, bronze daggers, a pin and some nails of bronze, fragments of ivory, pieces of stone vessels, two fish in beaten gold, inlay from a dagger blade,⁵² and some sherds of plain pottery. The most important objects, however, were found in the unplundered grave pit in the chamber. This contained the famous gold cups, 4 silver cups, a wealth of silver and bronze utensils,⁵³ 3 rings (1 of gold, 1 of bronze, and 1 of iron), 23 sealstones,⁵⁴ amethyst beads, a gold ornamented dagger and other bronze weapons, 2 stone lamps (1 of them of Rosso Antico), 2 alabaster jars,⁵⁵ 3 terracotta

⁴⁸ *AE* 1888, 199.

⁴⁹ *AE* 1889, 131.

⁵⁰ *AE* 1889, 136 ff.; cf. *AE* 1888, 197 ff.

⁵¹ Apparently of more than one body (*AE* 1889, 143).

⁵² *PM* iii. 127-9 (flying-fish design).

⁵³ Including a bronze axe, said by Evans (*PM* iv. 418-19)

to be of Syrian form.

⁵⁴ Many of these are exhaustively discussed by Evans in *PM* (index s.v. 'Vapheio Tomb' under 'sealstones').

⁵⁵ The alabaster jars and a silver spoon are of Egyptian provenance, of the XVIII and early XIX Dynasties (Pendlebury, *Aegyptiaca* (1930) 43 f.).

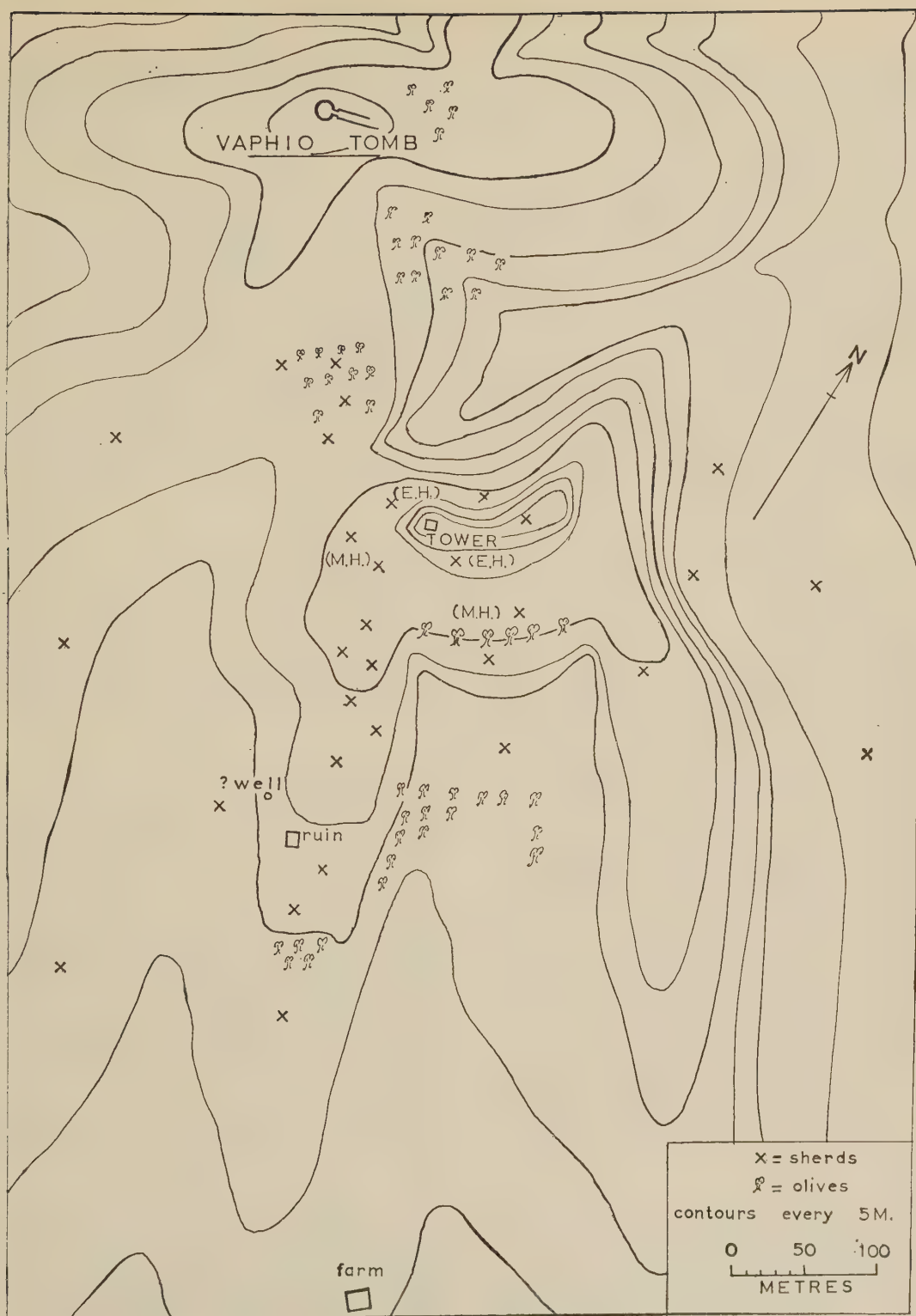


FIG. 4. VAPHIO AND PALAIOPYRYI

lamps, and some fragments from L.H. II 'Palace Style' vases.⁵⁶ All these grave goods belonged probably to one man. The tomb is the richest in Laconia and, like the Kambos tholos tomb,⁵⁷ it seems to belong structurally to the second group of tholoi at Mycenae.⁵⁸ This evidence, combined with that of the Palace Style sherds from the unplundered grave pit, indicates a L.H. II date for the Tomb.⁵⁹

On the upper part of the hill of Palaiopyryi only E.H. pottery has so far been found. M.H. and L.H. I-II is rare, and occurs only on the higher parts of the south-east slopes; while the majority of the surface pottery is L.H. III. The lack of Mycenaean sherds on the summit may be due to erosion. The south-east slope has a considerable depth of earth in parts, and some sizeable round stones indicate the presence of stone (and mud brick?) buildings here. Others seem to have been built on the spur which runs south-south-east from the 'tower' and in an olive grove to west of it. The surface sherds indicate an area of L.H. settlement of about 200,000 square metres, which is far greater than that of the other Mycenaean sites in the Spartan plain, and indeed in all Laconia. The 'floruit' seems to have been in L.H. IIIB, while the Vaphio Tomb proves that the site was already important in L.H. II. It is likely that a palace or at least a grand mansion awaits discovery at Palaiopyryi, and there can be no doubt that this settlement was the Homeric Φᾶρις (Il. ii. 582; Paus. iii. 2. 6, 20. 3).

PREHISTORIC FINDS FROM PALAIOPYRYI

EARLY HELLADIC

All the recognizable wares are 'E.H. II'. Predominant are *sauceboats* and small shallow *bowls* of *Zygouries* Class A II (cf. *Asea* 66 and *Eutresis* 97 f.). A rim and a base are illustrated here (PLATE 16c, 1, FIG. 6, 6; and PLATE 16c, 6) as well as a variation with cream slip (PLATE 16c 2, FIG. 6, 4; cf. *Eutresis* pl. 7, 2).

There were several fragments from 'Urfirnis' painted *sauceboats* and small *bowls* (*Zygouries* Class B II). Some are illustrated (PLATE 16c, 3-5, and 7).

Common in both Class A II and B II are the high hollowed foot (e.g. FIG. 6, 8-9) and low ring base mentioned in *Eutresis* 98. The Class A II rims are usually either slightly incurving or straight (cf. *Asea* 67). One Class B II base exactly resembles *Tiryns* iv Abb. 40, 9.

Coarse Wares include *pithos* fragments with finger-hole decoration on cordons below the rim (cf. PLATE 21d, 1, from Ayios Stephanos) and *open bowls* (a rim is shown on FIG. 6, 7) as well as storage jars similar to *Tiryns* iv, pl. 10, 1-2. The fabric of these is hard and gritty.

Of special interest is a fragment of an *animal figurine* (PLATE 23a, 1, FIG. 6, 3). The head and most of the legs are missing. L. 0.07 m. W. 0.03 m. H. 0.02 m. Buff-orange, sandy and micaceous clay. Decoration in thick matt paint. cf. (e.g.) *Tiryns* iv, pl. 5, 7-10, and pl. 25, 1-2; *Eutresis* fig. 269, 4.

MIDDLE HELLADIC

Four sherds of Imitation *Minyan Ware*. Hard purple-grey fabric (as at Asteri and Ayios Stephanos below). Two bowl rims are illustrated (PLATE 16c, 8-9 = FIG. 6, 10-11).

LATE HELLADIC I-II

Two fragments from *Kylikes* with naturalistic spiral form designs; and a sherd of L.H. II 'Palace Style' (PLATE 16c, 2).

LATE HELLADIC III

Predominant are monochrome painted *Kylikes* and *Stemmed Bowls*. The paint is usually streaky on the exterior, and the bases are hollowed beneath. Some are certainly L.H. IIIA, but most are L.H. IIIB.

Definitely L.H. IIIB are: 1. A sherd with vertical chevrons below the rim (MP Mot. 58: 17). 2. Part of a 'Myc. III Flower' on an open shape (MP fig. 42: 32). 3. A *Deep Bowl* sherd with panelled pattern (combination of MP 75: 2 and 75: 10).

Other shapes include *Craters*, *Stirrup Jars*, *Tripod Cooking Pots*, and *Pithoi* (rims as FIG. 17, 6-7 from Karneas and Asteri below).

⁵⁶ One vase was 'reconstructed' on paper by Marshall in *JHS* xxiv (1904) 317 f., pl. 11.

⁵⁷ Tsountas, *AE* 1891, 189 ff.; *BSA* lii (1957) 236 ff.

⁵⁸ It resembles most the Panagia Tomb (*BSA* xxv, 316-20; cf. Wace, *Mycenae*, index s.v. 'Tholos Tomb, Panagia Tomb').

⁵⁹ The vase (*AE* 1889, pl. 7, 19) which Evans (*PM* ii. 489 f., fig. 29A, b; iii. 177) assigned to L.M. IB is classed Myc. IIA by Furumark (*ChronMP* 49). Evans thought that the Gold Cups belonged to 'the earlier phase of L.M.I' (*PM* iii. 177; cf. *PM* i. 245, ii. 364, and iii. 177 ff.).

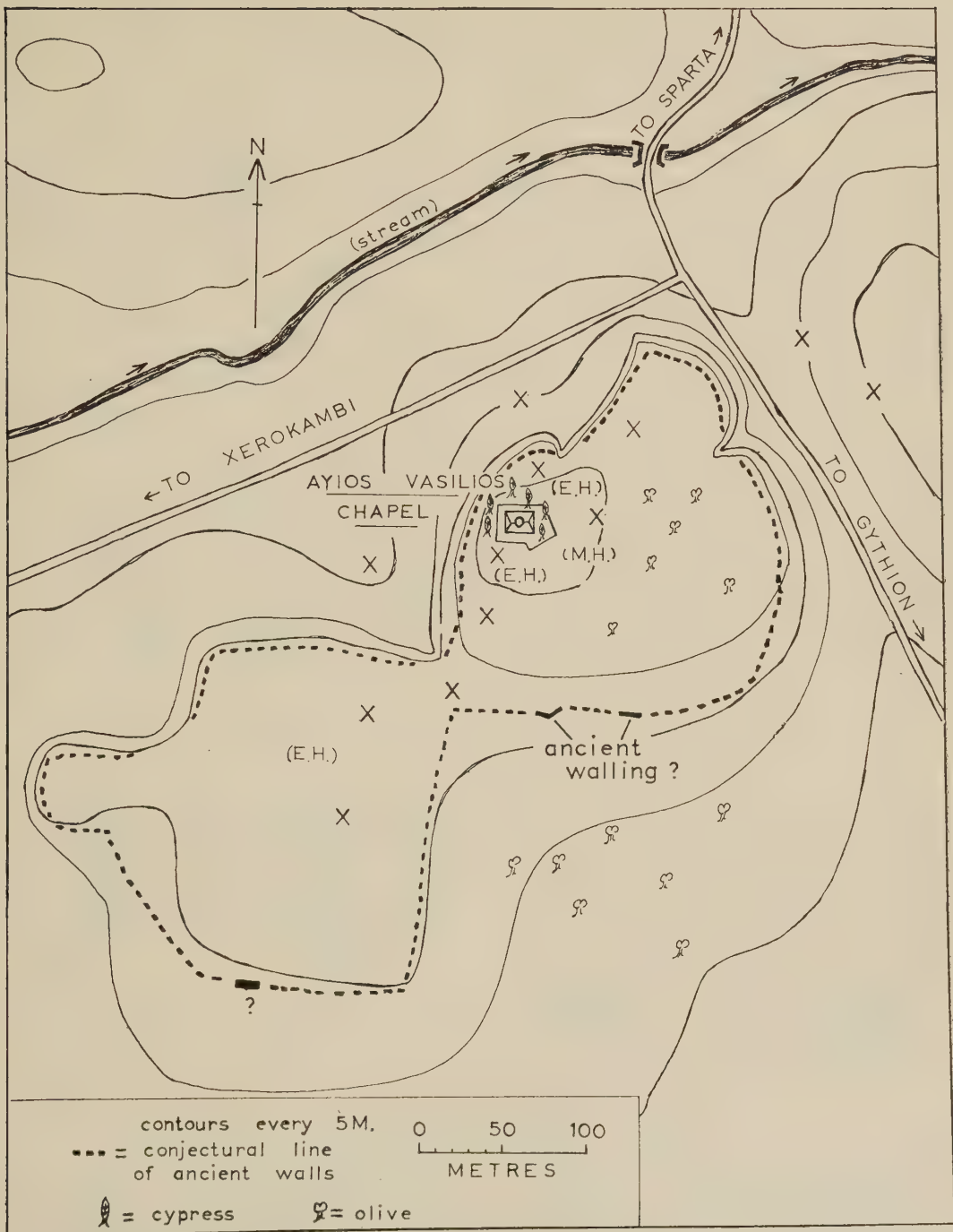


FIG. 5. AYIOS VASILIOS

BRONZE AGE STONE OBJECTS

1. *Holed Axe* (PLATE 23c, 7). Oval and rounded. Badly damaged and only half preserved. L. 0.07 m. W. 0.065 m. H. 0.059 m. Grey-green speckled stone, originally polished. cf. *Eutresis* fig. 278, 7 (M.H.); *Asea* fig. 115, 14 (M.H.);

Asine fig. 175, 7 (on the right).

2. *Holed Axe* (FIG. 6, 12), of polished grey stone, similar to No. 1. above.

There is a considerable amount of *obsidian* on the site, and a few fragments of stone *celts* and *pounders* were found.

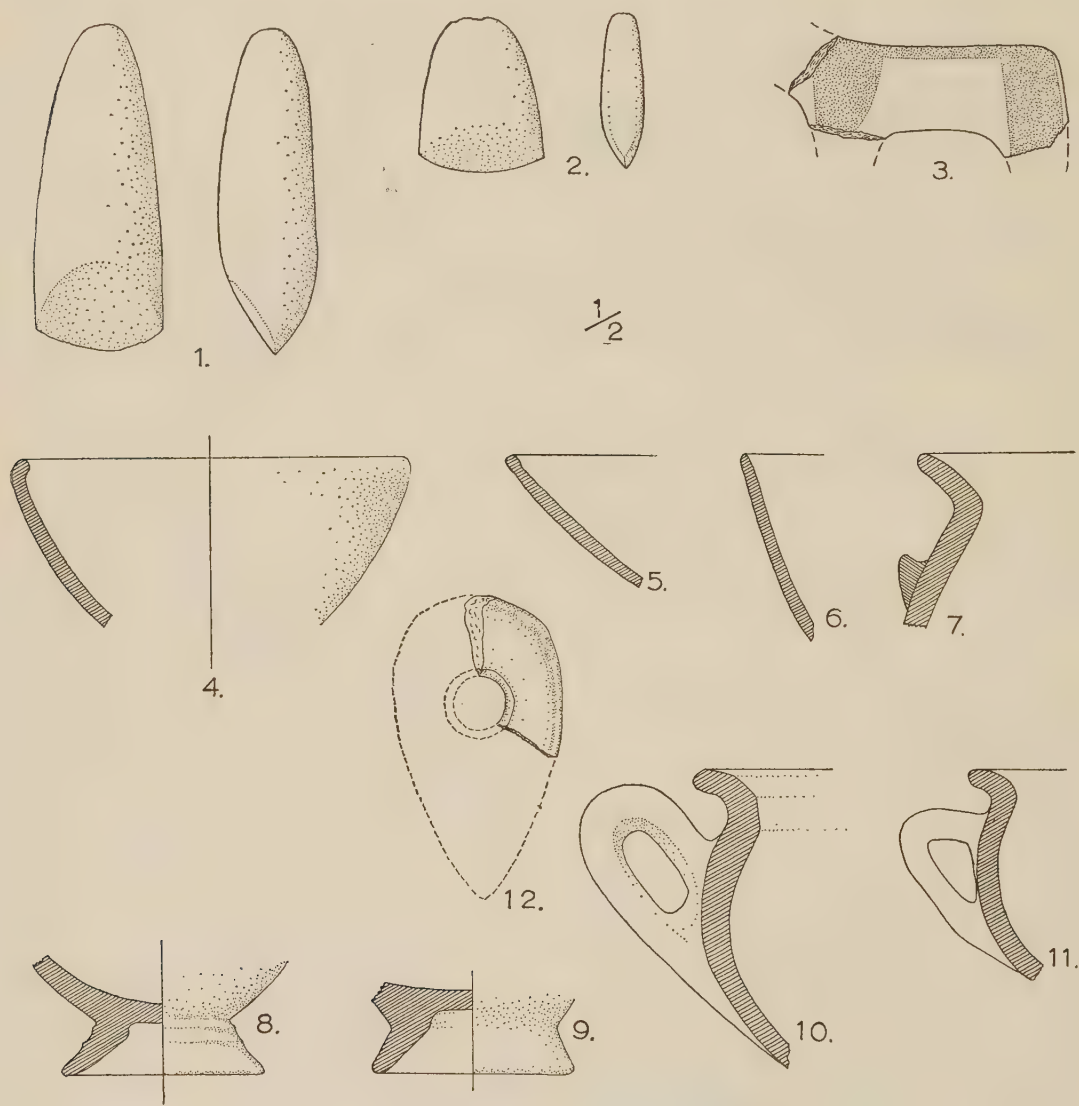


FIG. 6. FROM SITES IN THE SPARTAN PLAIN

AYIOS VASILIOS

The chapel of Ayios Vasilios (PLATE 17a, FIG. 5) lies on the hill south-east of the junction between the main Sparta-Gythion road and the branch road to Xerokambi. The hill is steep on the north, although not very high, while it slopes gently on the south and west. Copious Mycenaean sherds are to be found on it and on the lower hills to the south-west, while there are

a few E.H. and M.H. sherds from the immediate vicinity of the chapel, where there is also some classical and Hellenistic pottery. Remains of the rubble foundations of ancient (?circuit) walls may be seen on the north-west side, and at two points on the south side there are large rough blocks (about 1.0 m. by 0.70 m.) which appear to be in position (in the foreground of PLATE 17a). A kilometre south of the chapel, in the side of a low oval-shaped hillock, are two cuttings in the soft conglomerate rock.⁶⁰ These may be the remains of chamber tombs.

Ayios Vasilios is the southernmost point in the chain of hills (described above) which runs south from the Amyklaion down the centre of the Spartan plain. The extent of the L.H. III settlement here, and the indications that it may once have been walled, mark it out as equal in importance to the Amyklaion and Menelaion sites and second only to Palaiopyryi in the Spartan plain. Its situation accords with the description in Pausanias of the location of the Homeric Βρυσηῖαι (II. ii. 583; Paus. iii. 20, 3-4). The historic Bryseai was in ruins in Pausanias's day, and marked only by a temple of Dionysos (Paus. loc. cit.). It lay between Taygetus and the Eurotas, and above it rose 'Mt. Taleton, a peak of Taygetus'. Frazer⁶¹ and others thought that Mt. Taleton was Ayios Ilias, the summit of Taygetus, which does in fact appear to rise directly behind Xerokambi.

Besides the fragment of a fifth-century B.C. inscription built⁶² into the chapel of Ayios Vasilios, and the classical and Hellenistic sherds round the chapel, there are other indications that this area was well inhabited in the classical period. About 500 metres to north of the village of Arkasadhes is the ruined chapel of Ayios Nikolaos, marked 6 on FIG. 1.⁶³ All round the chapel are ancient sherds, including a few of classical black glazed ware, and fragments of broken column drums and limestone statues (Hellenistic or Roman). Beside the wall of the chapel lies a Doric capital in hard grey limestone.⁶⁴ About 2 kilometres north of Ayios Vasilios, to east of the Sparta-Gythion road, sherds of the classical and later periods were found on a gently rising hillock south of a stream; the site is marked 5 on FIG. 1.

PREHISTORIC POTTERY FROM AYIOS VASILIOS

EARLY HELLADIC

E.H. II glazed wares (*Zygouries* Class B II) and unpainted coarse wares (*Zygouries* Classes D and E) were represented.

Part of an *animal figurine* was found (PLATE 23a, 2). L. (preserved) 0.45 m. W. 0.02 m. Rather soft grey clay. Traces of orange matt paint decoration (cf. *Eutresis* fig. 269, 4). Four holes drilled into the body can be seen, and there is another in the centre of the body at the back.

MIDDLE HELLADIC

A few sherds of Grey and Yellow Minyan.

LATE HELLADIC III

Mainly from *Kylikes* and *Stemmed Bowls*, but *Deep Bowls*, *Craters*, *Jars*, and *Jugs* are also common. Many of the *Kylix* and *Stemmed Bowl* fragments are painted monochrome, and the style is mainly indicative of the early part of L.H. IIIB. The paint is carelessly applied (from base to rim) and the effect is streaky. The bases of the long-stemmed *Kylikes* are always hollowed beneath.

To L.H. IIIB may be ascribed some *Deep Bowl* sherds with linear band decoration below the main zone, and a sherd with part of a 'Myc. III Flower' (MP fig. 42: 32).

Several *obsidian* chips and a long *celt* were found in 1957, and various other stone implements from Ayios Vasilios are recorded in the Sparta Museum Catalogue (SMC nos. 595, 595a, 678, 702a-f, 703).

⁶⁰ The northern cutting is roughly circular, 2.50 m. in diameter, with sides preserved to 1.50 m. in height, and entrance 0.70 m. wide. The other cutting, 30 metres to the south, was originally circular (about 2.50 m. diameter), but over half of the rock has disappeared. The back wall of the cutting is now only a metre high.

⁶¹ iii. 364.

⁶² *AM* xxix (1904) 6. This is part of a list of contributions for the Peloponnesian War.

⁶³ Dr. Kommenos (author of *Λακωνικά* 1896) thought that the church of Arkasadhes was built over a tholos tomb, and there are rumours of other tombs in this neighbourhood.

⁶⁴ The abacus is 0.72 m. wide, and the total height of abacus and echinus is 0.25 m. The diameter of the column at the top is about 0.40 m. There is no fluting below the abacus, and the style is suggestive of the late 6th or early 5th century B.C. It is rather like *AM* lii (1927) Taf. xvi-xvii (from the Amyklaion).

FURTHER NOTE ON CLASSICAL SETTLEMENTS IN THE SPARTAN PLAIN

1. SPARTA DISTRICT (north to south)

In the course of searching for prehistoric sites in the region of classical Sparta, some additional information was gathered relating to problems of classical and later topography.

THORNAX (?) (Paus. iii. 10. 8). There is a considerable amount of ancient pottery, including classical, in olive groves and fields to west of the Sparta-Tripolis road to north and north-west of the main bridge across the Eurotas, 1 kilometre north of Sparta. This seems to accord with the position of Thornax, which appears to have been only a short distance north of classical Sparta (to judge from Paus. iii. 11. 1).

MAGOULA. Trial pits were dug near the hamlet of Magoula (*BSA* xvi (1909-10) 3) on the road to Varsova to north-west of Sparta. Pottery and stamped tiles were found (op. cit. 3, 13). Several objects are recorded in the Sparta Museum Catalogue as from Magoula. Particularly interesting are three sixth-century B.C. objects—No. 1, an archaic stele, No. 576, a seated draped statue, and No. 600, an enthroned 'chthonian deity' with an inscription carved on it. Also from Magoula are Nos. 442A, 577, 603, 606, 607, 608, 725, and 806, all of which are of the Roman Imperial period.

In 1957 classical pottery was found in many places on the south slopes of hills to north and north-east of Magoula, to north-west of classical Sparta, as far as the top of the spur of Strongilovouno (the spot height marked 346 on FIG. 1). About 150 metres north-west of the church of Analipsis, above the hospital to the north of the site of Sparta, there are the foundations of a large building, about 30 metres by 10 metres, set in the conglomerate rock. It is possible that this was once the site of a temple or shrine, since the ground in the vicinity is covered with classical sherds and chips of marble and limestone.

APHISSOU. Around the hamlet and to the south, in the low ground between it and the hills of the Menelaion, there are ancient sherds (in moderate quantity). This area might be considered as an alternative location of ancient *Therapne* to that proposed in *BSA* xxiv. 144 f. (the neighbourhood of Chrysapha), since Pausanias states that there is a shrine of Menelaus in *Therapne* (Paus. iii. 19. 9).

2. AYIOS IOANNIS

There is a widespread classical site in the olive groves 1 kilometre south of Ayios Ioannis, a little to south-east of the hamlet of Tseramio. The position of this site (marked 1 on FIG. 1) suggests that it may be the ancient Alesiae (Paus. iii. 20. 2-3).

3. SLAVOKHORI

To east of Slavokhori the fields and orange groves are full of classical, Hellenistic, and Roman pottery, for an extent of at least 2 kilometres north to south and 1 kilometre east to west. The site is almost certainly that of ancient *Amyclae* (Polybius v. 19, Paus. iii. 20. 3); cf. *BSA* xlv (1950) 281 f. Near the church of Ayia Paraskevi, within the area (marked 2 on FIG. 1), Mr. Christou found a hoard of votives, evidently from a shrine, possibly that of Alexandra Kassandra mentioned in Pausanias iii. 19. 6 (*JHS* lxxvii (1957) Suppl. 12 f.; cf. *BCH* lxxxi (1957) 548 ff., and *SMC* no. 441).

4. KALYVIA TIS SOKHAS

The site of the *Eleusinion* (Paus. iii. 20. 5) is marked 3 on FIG. 1. Excavations were made by the British School in 1910 (*BSA* xvi (1909-10) 12 ff., cf. 2 and 64-66) and in 1949 (*BSA* xlv (1950) 261 ff.; cf. *BSA* xlvii (1952) 118 ff.). Some of the many objects of 'bluish marble' recorded in the Sparta Museum Catalogue may be made of stone from the quarries near Sokha (*BSA* xlv. 261, n. 3).

5. ANOYIA (marked 4 on FIG. 1)

Possibly the site of the *Lapithaion* (Paus. iii. 20. 7). Small finds here include an Archaic Aeginetan stater (*BSA* xvi (1909-10) 66).

6. XEROKAMBI

Possibly *Harpleia* (Paus. iii. 20. 7), as is conjectured in *BSA* xvi. 67. The famous polygonal bridge, said by Leake to be Roman (*BSA* xvi. 67, quoting Leake, *Peloponnesiaca* 117), may in fact be Hellenistic. Local tradition holds that it was by way of this bridge that Paris abducted Helen to Gythion en route for Troy.

WEST PARNON AND THE LOWER EUROTAS VALLEY

CHRYSAFHA

About 2½ kilometres to south of the village of Chrysapha⁶⁵ is the hill of Palaikastro⁶⁶ (or Ayios Nikolaos), which is the tip of a spur projecting into the valley south of Chrysapha from the barren hills on the south-east. The valley extends for about 3 kilometres north to south, and 1 kilometre east to west. It is not now very fertile, although Chrysapha itself has a fine spring. The top of Palaikastro is now covered with the remains of stone huts and sheepfolds ('mandres') over its breadth of 150 metres. E.H. sherds⁶⁷ and obsidian⁶⁸ are abundant, and there is a good

⁶⁵ Leake, *Morea* ii. 519 ff.; *BSA* xxiv. 144 f.

⁶⁶ *BSA* xvi. 65.

⁶⁷ From 'Urfirnis' sauceboats and shallow bowls. These often have the high hollowed foot (cf. FIG. 15, 10-14).

There was also a celt of PT Type A. L. 0.06 m., of light-green coarse-grained stone, well smoothed.

⁶⁸ Over 20 fragments; cf. *BSA* xvi. 65.

deal of classical and Hellenistic pottery as well as lumps of melted iron ore (or 'scoriae').⁶⁹ The site may have been occupied also in the L.H. period, but it would never have been of importance. Although the hill 'Pikromygdalia', where the famous hero relief was found,⁷⁰ does not now seem to be known locally, the distance from Chrysapha⁷¹ and the direction make it likely that 'Pikromygdalia' was near Palaikastro, and it may possibly be Palaikastro itself.

GORITSA

About a kilometre south-east of Goritsa, beside the road to Zoupaina, is a small chapel, beyond which a track leads down to a chapel and farm 800 metres to south of the road (FIG. 7a). The district is called Laina. A short distance to south-east of the farm is the Tsaltas ravine, where Dr. von Vacano found a double cave with traces of Neolithic inhabitation.⁷² The caves are spacious and the area is abundant in water, both from the ravine and from a spring just above the cliff, which was flowing strongly in early May. There are rock-cut steps above the caves on the east, apparently serving as a ladder to the cliff top. A short distance to the north is a prehistoric settlement, on a hillock overlooking the broad plainlands to the east and the road to Geraki. The site is about 200 by 180 metres in extent. It is steep on the south and east sides, but to the north and west it is connected by a saddle to the barren hills to south-east of Goritsa. E.H., M.H., and L.H. I-III pottery was found here, and a quantity of obsidian fragments, but nothing Neolithic. There are reports that chamber tombs have been discovered in the neighbourhood, and the surface finds attest a considerable Bronze Age population, especially in the L.H. period.

POTTERY FROM GORITSA 1957

EARLY HELLADIC

Sauceboat bases (Urfirnis)

Animal Figurine (PLATE 23a, 3). Hind part of body only, and stumps of two legs. L. 0.045 m. W. 0.025 m. Orange-buff powdery clay; traces of overall decoration in brown matt paint.

MIDDLE HELLADIC

Bowl fragments of *Imitation Minyan Ware*

Imitation Grey Minyan (FIG. 7b, 1). Shape as *Eutresis* fig. 186, 2. Hard purplish clay.

Imitation Yellow Minyan? (FIG. 7b, 2). Shape as *Eutresis* fig. 183, 4. Orange-buff micaceous clay.

LATE HELLADIC I-II

?L.H. I *Stemmed Goblet* (FIG. 7b, 3). Base. Orange clay. Traces of brown monochrome paint inside and out. Shape as *Korakou* fig. 56 or 57.

?L.H. I or II *Stemmed Goblet* (FIG. 7b, 4). Base. Yellow clay. Gritty and micaceous fabric.

LATE HELLADIC III

Mostly *Deep Bowls* or *Stemmed Bowls* and *Kylikes* (many with long stems). Fabric mostly soft, and clay pink or reddish. Paint streaky (cf. Ayios Vasilios above), usually monochrome, but some sherds have linear band decoration.

Certainly L.H. IIIB is a sherd with part of an antithetical spiral pattern with central triglyph (*MP Mot.* 50).

The impression is that most of the Mycenaean pottery is L.H. IIIB.

VRONDAMA

On the edge of the small fertile plain to east of the Eurotas less than 2 kilometres west of Vrontama (FIG. 8) is a small hill of soft poros limestone, whose white cliffs stand about 8 metres high above the plain. Classical and Hellenistic sherds are abundant over the summit area (about 120 m. by 90 m.) and over the larger terrace to the south, and they extend for a considerable distance all round the hill. A few fragments of L.H. III kylikes and L.H. pithoi were

⁶⁹ Cf. Leake, *Morea* i. 510 f. (Neapolis, Vatika).

⁷⁰ *BSA* xxiv. 145; cf. *AM* 1877, 303. With the hero relief was found an inscription referring to Hermes and Zeus Teleios (?).

⁷¹ Calculating that $2\frac{1}{2}$ km. = $\frac{1}{2}$ hour in this case.

⁷² *AA* 1942, 156. 'Eine andere jungsteinzeitliche Siedlung wurde in dem Parnonberg südöstlich von Sparta festgestellt.' Dr. von Vacano kindly gave me directions to find the site (R. H. S.). The local name for the caves is Πάππα 'Ιαννάκου Σπήλαια.

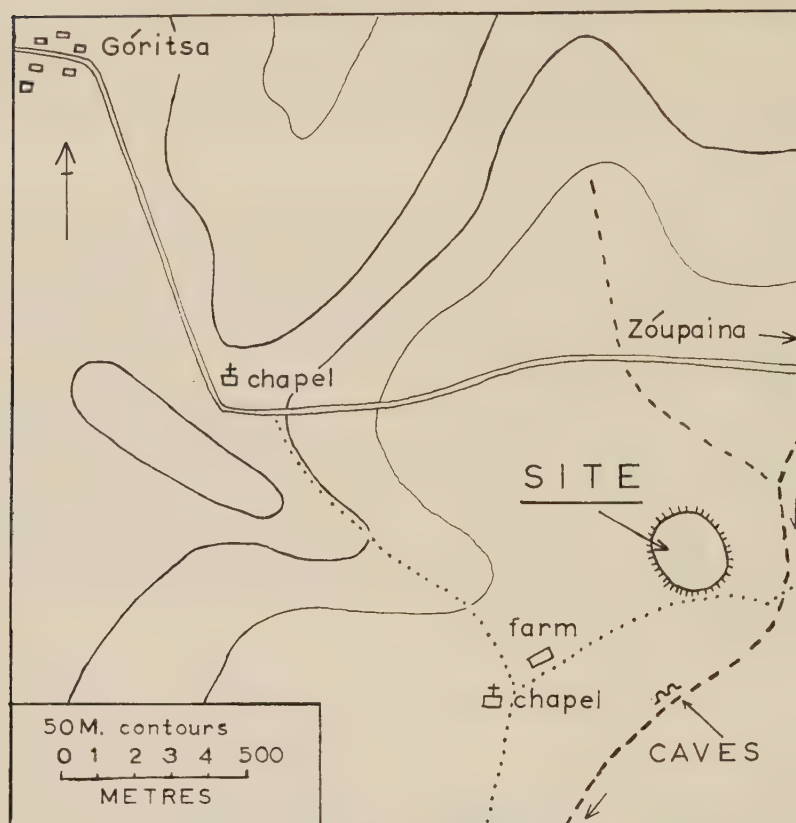


FIG. 7a. SITE NEAR GORITSA

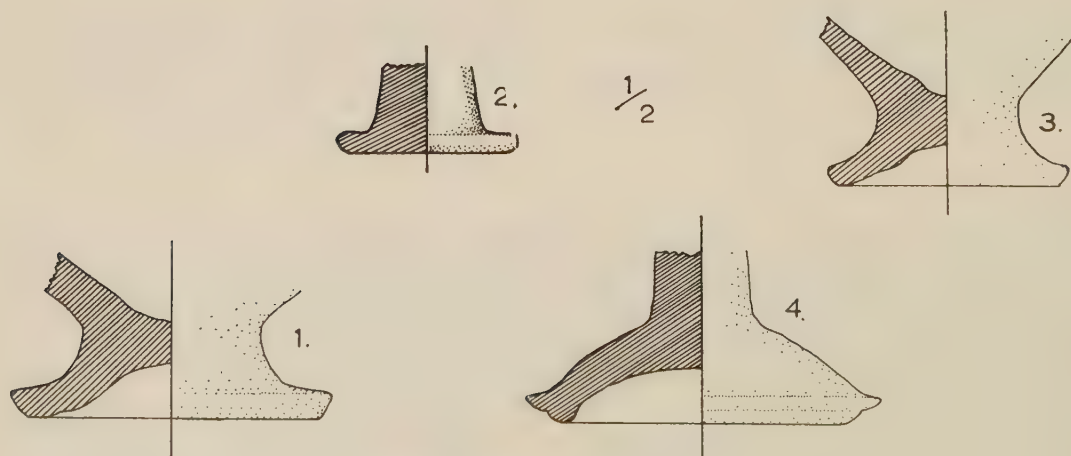


FIG. 7b. SHERDS FROM GORITSA

found on the top of the hill, but the majority of the pottery is fifth- to fourth-century B.C. black glazed ware and tiles. The small acropolis is beautifully situated in the river valley, commanding the important route down the Eurotas to the Helos plain.⁷³

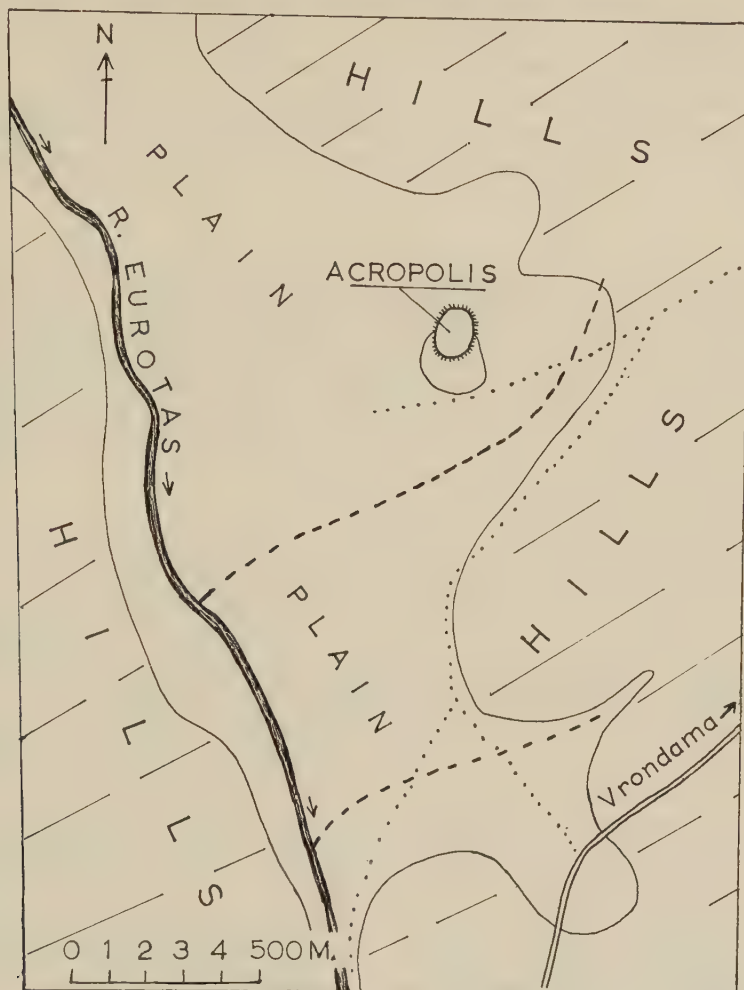


FIG. 8. SITE NEAR VRONDAMA

GERAKI

The imposing acropolis of Geraki (ancient Geronthrai)⁷⁴ on the summit of the hill of the large village of Geraki, is the site of an important prehistoric settlement, first occupied in the E.H. period,⁷⁵ or possibly in Neolithic times.⁷⁶ In 1905 trial excavations resulted in the discovery of

⁷³ Leake (*Morea* i. 194 ff.) found traces of a carriage road between Grammoussa and Tsasi (a stretch of which is shown here on PLATE 18c), cf. *BSA* xv. 162. The road is preserved in many more places than those described by Leake, and can be followed in sections for practically the whole distance between Grammoussa and Tsasi. To west of Tsasi there is a branch running westward towards Skala.

⁷⁴ Paus. iii. 22. 6-7; cf. *BSA* xv. 163-4.

⁷⁵ E.H. is common. *Zygouries* Class A II (fine slipped and polished), Class B II, and Domestic Coarse Wares (Classes D and E) are all represented. Shapes include *bowls*, wide-mouthed or with incurving rim, *sauceboats*, and heavy crater-like bowls.

⁷⁶ *BSA* xv. 164 and xvi. 75. A surface sherd found in 1937 seems very like Neolithic Red-on-white ware, as Kosmopoulos, *Corinth* i, pl. 2 (d).

three M.H. cist graves,⁷⁷ and most of the pottery recovered was M.H.,⁷⁸ including the class known as M.H. III.⁷⁹ The L.H. period is not well represented,⁸⁰ and this may be due to levelling in classical times when, as Pausanias tells us (iii. 22. 6–7), there was a temple of Apollo on the acropolis. It is conceivable that the ‘Pelasgian’ walls⁸¹ on the acropolis date from M.H. times, in which case they would be almost the only considerable fortifications of this date known in Greece;⁸² but it is more likely that they are Mycenaean, since their style is ‘Cyclopean’.⁸³ Pausanias states that Geronthrai was inhabited before the Heraclidae came to the Peloponnese, but that the Dorians of Lacedaemon expelled the Achaean inhabitants and afterwards sent settlers of their own. This tradition would imply a break at the end of the Mycenaean period.

APIDIA

An easy four hours southwards from Geraki lies the small valley of Apidia. There is now only a small village in the valley, but its importance in medieval times is shown both by its many ruined churches and a Palaiologos tomb in the Metropolis, and by the Frankish watch-tower on a peak to the south-west. Boblaye⁸⁴ suggested this peak for the site of ancient Palaia or Pleai (Paus. iii. 22. 5; Livy xxv. 27), and Wace and Hasluck agree⁸⁵ that this place must have lain at or near Apidia. In fact the hill just above the village to the west (PLATE 18a) is covered with sherds dating from Neolithic to classical times, and must be the site both of Palaia and of the earlier settlements which gave that town its name of ‘old’.

Two kinds of Neolithic were collected. The first (PLATE 18b, 9) resembles Thessalian A3β,⁸⁶ Red-on-white, and has brownish patterns on a buff, highly polished slip; the biscuit is reddish, hard, and full of particles, the interior is not polished.⁸⁷ Similar ware has been found, in the Peloponnese, at Old Corinth,⁸⁸ Nemea,⁸⁹ Gonía,⁹⁰ Ayioryitika⁹¹ (where it is the typical ware of the period), and the Argive Heraion.⁹² Holmberg’s ‘coarse burnished patterned ware’ (C1) at Asea⁹³ is probably the same, although his pieces are heavily polished inside and light-on-dark is more common there. The second type (PLATE 18b, 11) is the polychrome pottery typical of the later stage at Gonía,⁹⁴ which corresponds to the B3β wares of Thessaly.⁹⁵ This also has a wide distribution in the Peloponnese—the Argive Heraion,⁹⁶ Ayioryitika,⁹⁷ and perhaps Malthi⁹⁸—and seems characteristic of the later Neolithic all over the Greek mainland.

The E.H. pottery collected was A3 (part of cream-slipped bowl with incurved rim), D (part of the rim of a carelessly made sauceboat), and E (assorted coarse sherds). The M.H. period is

⁷⁷ Reports in *BSA* xi. 91 ff. and xvi. 72 ff.

⁷⁸ A great deal of *Matt-painted* (esp. *BSA* xvi. 73 (b), (c), (d), and 74, figs. 3 and 4); some *Grey Minyan* (N.B. *BSA* xvi. 72, fig. 1 (d) is a local imitation of Minyan Ware—cf. PLATE 16c, 8 from Palaioypyri above) and *Argive Minyan*.

⁷⁹ Especially *BSA* xvi. 74, figs. 3 and 4. Of similar style are *AM* lii (1927) Beil. i (in the centre) from the Amyklaion; and cf. *Prosymna* pl. 43. One sherd (*BSA* xvi 73, fig. 2 f.) has added white.

⁸⁰ Most of the sherds called ‘Local Mycenaean Ware’ (*BSA* xvi. 73) are in fact M.H. Matt-painted. The three *figurines* with ‘shapeless columnar bodies’ and ‘arms extended horizontally’ are L.H. III. They seem early in type (cf. *Phylakopi* pl. 39, 15, 20 and p. 202) and do not belong to any of Blegen’s classes at Prosymna (*Prosymna* 355 ff.). Another was found at the Amyklaion (*SMC* 794 A 1).

⁸¹ *BSA* xi. 93 ff., figs. 1–3; cf. PLATE 17b here.

⁸² Valmin, *La Messénie ancienne* (1930) 116.

⁸³ Cf. *BSA* xi. 94 f. ‘From its style the wall need not necessarily be prehistoric, but from the early occupation of the site as proved by the pottery found in the course of our

excavations it probably dates at least from the Bronze Age’, and ‘... fairly large unworked stones, patched up here and there with smaller stones to help the joints. . .’

⁸⁴ *Recherches scientifiques dans La Morée* 95.

⁸⁵ *BSA* xv. 162–3.

⁸⁶ *PT* 14; Tsountas 177 ff.

⁸⁷ Cf. sherds from Tsangli and Zerelia in the Museum of Classical Archaeology at Cambridge.

⁸⁸ Weinberg, *Corinth* 497 f., fig. 14 (cf. Mylonas, N. ‘E. *év* ‘E. 81).

⁸⁹ Mylonas, op. cit. 83.

⁹⁰ *Gonia* 67 and fig. 14.

⁹¹ *AJA* 1928, 534.

⁹² *Prosymna* category B III, pp. 370 f., fig. 623, nos. 1, 2, 5.

⁹³ *Asea* 46–47, fig. 46 and pl. 2.

⁹⁴ *Gonia* 69 and pl. 2.

⁹⁵ *PT* 16, Tsountas pl. 8, 6 and 10, 1.

⁹⁶ *Prosymna* 373 f., colour pl. 3.

⁹⁷ Mylonas, N. ‘E. *év* ‘E. 87, but contrast *AJA* 1928, 534.

⁹⁸ *Malthi* pl. IV, 21, looks similar but is not described in the text.

represented by Grey Minyan, of excellent quality (e.g. PLATE 18*b*, 1), coarse pottery of Yellow Minyan type, and Matt-painted, which appears to be hand-made.

The majority of the L.H. pottery was good, rather early L.H. III, including one piece with added white (PLATE 18*b* 10); L.H. IIIB panel-style bowls are well represented, e.g. PLATE 18*b*, 4 (askew). Earlier pieces include a sherd from an alabastron with 'ogival canopy' pattern (PLATE 18*b*, 6 askew); probably L.H. II), and one, from an open pot, with what looks like lily pattern (PLATE 18*b*, 7 (upside down)); also probably L.H. II). L.H. III shapes recognized were bowls, large⁹⁹ and small, kylikes, cups, and stirrup-jars.

A sherd of Protogeometric ware¹⁰⁰ of Amyklaion type was collected in 1957. The classical pottery observed was black glazed.¹⁰¹

THE HELOS PLAIN

In prehistoric times the plain must have been mostly sea or marsh,¹⁰² since the present depth of earth is the result of (geologically) recent alluvial deposits, mainly brought down by the Eurotas. The position of the sites (described below in order from east to west), on the low hills immediately bordering the plain, tends to show that the marsh land itself was not extensively farmed, but that the ancient settlers preferred the more easily cultivated hillocks or terraces round the plain.¹⁰³

AYIOS IOANNIS

The village of Ayios Ioannis is on a low hill between the two forks of the road from Molaoi to Vezani. The surface of a field (150 by 130 m.) on the top of this hill is covered with ancient sherds, mainly classical and Hellenistic, but also including M.H.,¹⁰⁴ and some possibly L.H.¹⁰⁵ Obsidian is plentiful.

To east-south-east of the village, near a stream, are house walls of Hellenistic or Roman date, made with mortar; and repairs to the road between Ayios Ioannis and Vezani revealed some small miniature skyphoi, apparently from tombs.¹⁰⁶

AYIOS STRATEGOS

The chapel of Ayios Strategos (FIG. 9) stands on one of a group of hillocks on the edge of the marsh about 2 kilometres south-west of Vezani. On a small hill (FIG. 9, marked 1) to south of the

⁹⁹ An early L.H. III date is suggested for PLATE 18*b*, 9, a *Crater* fragment, by the excellence of its fabric—hard reddish clay, black shiny micaceous paint on interior, light buff polished slip on exterior; the pattern of hatched stemmed spirals (in lustrous black) is assigned by Furumark (*MP* fig. 63, nos. 8 and 9) to L.H. IIIB-C.

¹⁰⁰ PLATE 18*b*, 10. *Crater*, part of rim (D. 0.32 m.). Hard buff-red clay. Micaceous paint on exterior on buff ground. Cf. *AM* 1927, Taf. 3, 7 (from the Amyklaion) and *Proto-geometric Pottery* pl. 38, 1, 3, and 13 (also from the Amyklaion).

¹⁰¹ Another small classical (and Hellenistic) site lies midway between Apidia and Gouves, on a small elevated plateau (300 by 200 m.) about $\frac{1}{2}$ km. from the summit of the small mountain of Vonda, south of the track from Apidia to Gouves. There is a fine spring on the east, which flows into an artificial basin carved in the rock. The whole area is covered with dressed stones, classical black glazed pottery, and tiles (the purple variety). Not far away on the east is the small chapel of Ayios Konstandinos. The site probably lies on the ancient route from Apidia (Palaia) to Geraki

(Geronthrai).

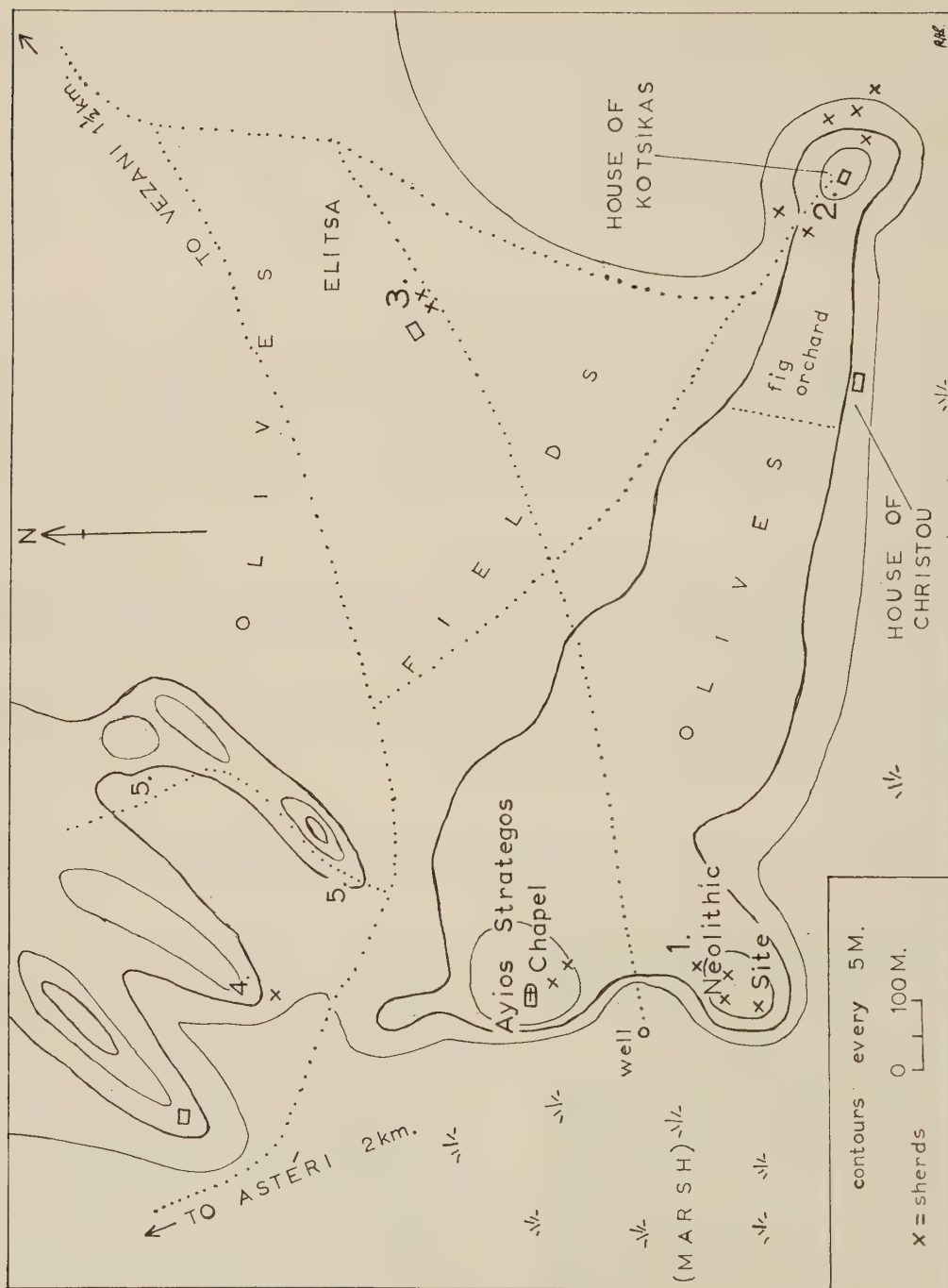
¹⁰² It reverts to marshy conditions from November to March.

¹⁰³ Especially near Asteri and Vezani, Tsasi, and Lekas.

¹⁰⁴ Some sherds from Grey Minyan *bowls*. A bored *cell* (*BSA* xv. 161, n. 4) is probably M.H., like most of those from Asea (*Asea* 122 f.).

¹⁰⁵ Sherds from *craters* and *jugs* of a hard purple-grey fabric like that of L.H. sherds from Asteri (below).

¹⁰⁶ Two are exactly like miniatures from the Amyklaion (*AM* lii. 60, Taf. 15, 17). One is illustrated here (FIG. 17, 8). It is of rough orange clay, handmade, covered all over with an orange slip. It resembles *BSA* xi. 85, fig. 6, nos. 1-7, from Angelona. Similar votives were found at Artemis Orthia (*JHS* suppl. v, 106-9) and these were roughly contemporary with Laconian I pottery. But there are Hellenistic examples from the Athenian Agora (*Hesperia* xxi (1952) pl. 42: 86 and xxiii (1954) pl. 18, nos. 13, 15-16), and the Agora votives range in general from the Archaic to the Hellenistic period.



chapel, also bordering on the marsh, a large amount of Neolithic¹⁰⁷ pottery was found, as well as some E.H. (sherds of Urfinis ware) together with obsidian, several celts and pounders, and a saddle quern of poros stone, 0.15 m. by 0.08 m. A kilometre to the east, on the easternmost hillock (2 on FIG. 9), E.H.,¹⁰⁸ M.H.,¹⁰⁹ and L.H. II–III¹¹⁰ pottery was collected; and at a place named Elitsa (3 on FIG. 9) farther to the north there are remains of a very small and poorly built tomb of the Mycenaean Period.¹¹¹

On the hill of Ayios Strategos itself were some black glazed late (?) classical sherds. The 'remains of small houses built with mortar' mentioned by Wace and Hasluck¹¹² are presumably those to north of the chapel (5 on FIG. 9; coarse sherds at the point marked 4). There was no pottery near them, and they look relatively modern. At 'στὸ Μονολάκι', where 'marbles' were said to have been found¹¹³ (about 2½ km. north of Ayios Strategos and a little north of the road from Asteri to Vezani) there were fragments of classical amphorae, tiles, and black glazed pottery over a wide area.

ASTERI (DHRAGATSOULA)

Half a kilometre east-south-east of Asteri village, a short distance south of the road to Vezani, is a flat-topped hillock named Dhragatsoula, bordering the plain on the north side.¹¹⁴ This small prehistoric site was occupied throughout the Bronze Age.¹¹⁵ At Keramidiona, 600 metres to the south-east, it is reported that human bones were found in pithoi, when an olive pit was being dug.

ASTERI: KARAOUSI

On the right of the road from Asteri to Vlakhioti, on the edge of the plain and only 200 metres from the outskirts of Asteri village, is the large and prominent flat-topped hill of Karaousi (PLATE 20*b* and FIG. 10), which resembles a Thessalian 'High Mound' site. (The top surface of the hill measures 160 by 100 metres.) It was settled in the Neolithic period and inhabited throughout the Bronze Age. The hill is considerably eroded, and the sandstone rock shows in

¹⁰⁷ NEOLITHIC (classified mainly according to Weinberg, *Corinth*).

(a) 'Variegated Ware' (Class I A). The sherds are all from *Deep Bowls*, as *Corinth* 495, fig. 4. Eight fragments are from straight rims (two illustrated on FIG. 15, 1 and 3). One is from a rounded base, as *Corinth* fig. 5 (a). Twenty-five other fragments were recovered, several highly burnished, and many showing the characteristic changes of colour (*Corinth* 494).

(b) 'Red Slipped Ware' (Class I B). Two slightly incurved rims (one in FIG. 15, 2). The shapes resemble PAE 1951, 106, fig. 18α–β, from Kokkinia (Peiraeus). Several other fragments.

(c) 'Coarse Monochrome Ware' (Class I D). (Probably = *Asea* Class A 5, 'Coarse Burnished Ware'.) Three flat vertical handles from large bowls are shown on PLATE 19*a*, 2–4 (PLATE 19*a*, 3 = FIG. 15, 4). Clay coarse and micaceous. Several other fragments.

(d) *Asea* Class D (Coarse Ware). Two sherds with finger impression bands are illustrated (PLATE 19*a*, 1 and 7), cf. *Prosymna* fig. 626, nos. 2–4, 6–7, and 10. Two sherds with holes bored from the outside (PLATE 19*a*, 8 and 9), cf. *Asea* 54 ff. Two *pithos* fragments with plastic rope decoration might also belong, if they are not E.H. (PLATE 19*a*, 5 and 6).

¹⁰⁸ Straight rims of coarse red fabric, from large bowls.

¹⁰⁹ Two Grey Minyan sherds and one of Matt-painted, and a lid resembling *Eutresis* fig. 249, 4.

¹¹⁰ L.H. II. A naturalistic spiral on a closed shape. L.H. IIIA. Some sherds with lustrous monochrome paint. L.H. IIIB. A rim of a deep bowl. To L.H. may be attributed several wheel-made coarse-ware fragments, and the foot of a *tripod cooking-pot* (L. 0.15 m.).

¹¹¹ Of tholos type, revealed in section by a track. Two L.H. III *jug* bases were found, whose shape resembles those from the tomb at Tsasi (below).

¹¹² *BSA* xv. 161.

¹¹³ *Ibid.*

¹¹⁴ 150 metres to west is the church and cemetery of Ayios Nikolaos, surrounded by a grove of cypress trees.

¹¹⁵ EARLY HELLADIC: two sauceboat fragments of *Zygouries* Class A II, with grey-blue wash. Three sauceboat fragments of *Zygouries* Class B II (Urfinis). Several 'E.H. II' rims of deep bowls, of coarse fabric with reddish-brown slip (cf. *Asine* fig. 157, 4–5, and *Asea* fig. 82, e). Part of a Bridge-spouted Jar (cf. *Zygouries* fig. 100, 4). Several pithos fragments, mostly from straight rims, of hard red fabric. One sherd (PLATE 22*a*, 1) has a raised band with finger impressions.

MIDDLE HELLADIC: two sherds of Grey Minyan.

LATE HELLADIC III: two kylix fragments.

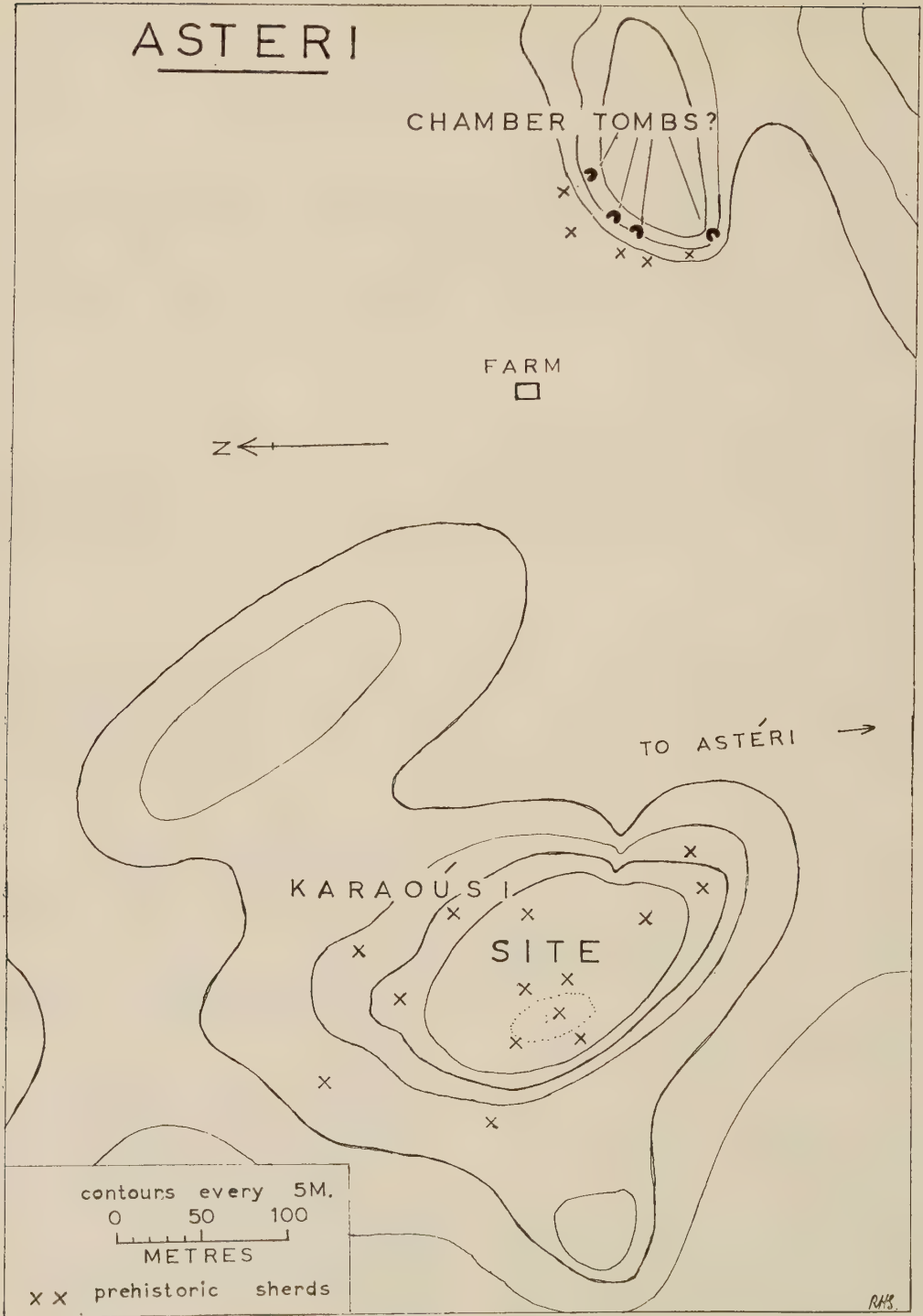


FIG. 10. ASTERI

many places, especially on the south-east slope; in the centre the depth of soil may be a little over 2 metres. The Neolithic¹¹⁶ and E.H.¹¹⁷ sherds were found on the higher part, towards the north. M.H.¹¹⁸ and L.H. I–III¹¹⁹ sherds were plentiful, and widely distributed, and a concentration of L.H. was observed on the lower south slopes. The M.H. and L.H. pottery is of high quality, and its quantity shows that the settlement was important, although it does not appear to have been walled. To east of Karaousi, at the foot of the north and west slopes of a low hill, several L.H. II–III¹²⁰ sherds were found, together with some that may be either

¹¹⁶ Three sherds of Weinberg's Class I A (*Variegated Ware*). Three sherds of 'coarse burnished ware' (*Asea* Class A 5), with small knobs like *Asea* fig. 37, *t* and *u*. A sherd with incised parallel lines on the exterior and burnishing marks on the interior is probably Neolithic.

¹¹⁷ The pottery all belongs to the 'E.H. II' period. Small bowls and sauceboats of blue-grey 'faience ware' (*Zygouries* Class A II) are represented (e.g. PLATE 22a, 3); also 'Urfirnis' (*Zygouries* Class B II)—a high sauceboat foot is shown on FIG. 15, 10. Typical are 'E.H. II' bowl rims (e.g. PLATE 22a, 2). Various stone objects are probably E.H. (1) A marble pestle (PLATE 23c, 9). L. 0.018 m. D. 0.012 m. Of black-and-white-veined marble. Cf. *Zygouries* 197–8 and pl. 22 13–21; *Eutresis* 201, fig. 271; *Asine* fig. 175, 5; *Korakou* 104; *Asea* fig. 114, 16. (2) A stone scraper (PLATE 23c, 8). Of hard dark-green stone. (3) A small serrated flint (light grey); cf. *Zygouries* fig. 18, 7. (4) Part of a small celt of PT Type A, of grey stone.

¹¹⁸ GREY MINYAN

Several sherds from large bowls or goblets (FIG. 16, 1–2 and 12) and from jugs or jars (FIG. 16, 13); a few sherds of incised Grey Minyan (e.g. PLATE 20a, 3, cf. *Asea* fig. 93, g).

IMITATION GREY MINYAN

Local hard purple-grey fabric. Very common, both plain (FIG. 16, 8 and 12) and incised (PLATE 20a 1–2, 4–5, 7–8). PLATE 20a, 1 = FIG. 16, 7, cf. *Asea* fig. 91, g. PLATE 20a, 5 is like *Asea* fig. 93h–j; cf. *Asine* fig. 188, 2 and 5, *Korakou* fig. 23c, 7, *Eutresis* fig. 199, and *Malthi* pl. 18, 3. PLATE 20a 7 = FIG. 16, 11.

IMITATION ARGIVE MINYAN

Incised sherds (e.g. PLATE 20a 6, cf. *Asea* fig. 93h, *Eutresis* fig. 181, and *Hesperia* xxiii (1954) pl. 7 (c) from Lerna).

MATT-PAINTED

Not as common as Minyan. Same purple-grey local fabric as the Imitation Minyan ware above. PLATE 22b, 1, from a jug, may be an example of the variety of matt-painted recognized at Lerna (e.g. *Hesperia* xxiv (1955) 35 and pl. 17d). PLATE 22b, 2 and 3, are from a large bowl and a large jar respectively. FIG. 16, 14 is a typical handle of a *πίθος* or large jar.

COARSE WARE

Fragments from large jars and bowls (e.g. FIG. 16, 9).

PROBABLY MIDDLE HELLADIC

A spindle whorl (PLATE 23a, 5 = FIG. 17, 10; cf. *Eutresis* fig. 265, nos. 6–7 in middle row). A stone bowl rim (FIG. 15, 9). ?Cretan.

¹¹⁹ LATE HELLADIC I–II

PLATE 19b, 2. (L.H. I or II) *Cup*. Base (D. 0.04 m.) of fine buff clay and slip; lustrous brown paint on exterior, streaky monochrome on interior; polished. For shape cf. *MP* fig. 13, form 211, Medium (L.H. IIA), and *Asine* fig. 204, 1 (L.H. I), and *Prosymna* fig. 679 (L.H. II). PLATE 6b 1.

(L.H. II) *Deep Bowl*. Rim (D. 0.22 m.), of yellowish clay, buff slip, and lustrous paint; polished. For shape cf. *MP* fig. 13: 279 (L.H. IIB). Decoration resembles *MP* fig. 37, 3 (L.H. IIB). For shape and decoration cf. *Korakou* fig. 64 and *AE* 1889, pl. 7, no. 19 (from Vaphio). PLATE 19b, 7 *Jug*? Of hard purple-grey clay.

LATE HELLADIC II–IIIA

Several sherds from *Kylikes* and *Stemmed Bowls*, with lustrous paint and high polish, usually in the same hard fabric as the Imitation Minyan of M.H. PLATE 19b, 5–6, from *Kylikes*, are typical. FIG. 17, 13–14, from *Stemmed Bowls*, are examples of the commonest shapes (cf. *MP* fig. 16: 263 and 269).

LATE HELLADIC IIIB

Most of the L.H. pottery is of this date. The commonest shapes are *Kylikes*, *Stemmed Bowls*, *Deep Bowls*, and *Craters*. Frequently occurring shapes are *MP* fig. 17: 267 and fig. 18: 305. Other 'fine ware' shapes include *alabastra*, *stirrup vases*, and *piriform jars*. The fabric is mostly hard, as the M.H. and L.H. II–IIIA above, but there is also a softer buff fabric, especially for *Deep Bowls* and *Kylikes* (the latter have neatly hollowed bases). PLATE 19(b), 8. *Kylix*. Rim (D. 0.16 m.), of hard orange-buff clay, and slip. Lustrous orange paint. Shape as *MP* fig. 16, 264 (L.H. IIIA2). Design very like *MP* fig. 42, 11 ('Myc. Flower'). PLATE 19b, 9. *Deep Bowl*. Part of a horizontal handle (wrongly photographed vertical), of soft buff clay, and decoration in dullish paint. Pattern as *MP* fig. 67, Mot. 58, 2–3 ('Accessorial Chevron'). PLATE 19b, 11. *Stirrup Vase*. Spout (Top D. 0.02 m.). Of hard reddish clay, with band of black matt paint round rim. Shape as *MP* fig. 22, 'IIIB-C: 1 c'. PLATE 23a, 4. *Mycenaean Ψ Figurine*. Body and part of arms preserved. H. 0.08 m. W. 0.02 m. Hard, well-levigated clay. Two vertical bands of lustrous paint at each side of body, and two horizontal bands, one at the foot (which is hollowed) and another just below the arms.

LATE HELLADIC IIIC?

Some *Deep Bowl* and *Stemmed Bowl* fragments of soft greyish fabric with poor dull paint. These are probably early L.H. IIIC.

LATE HELLADIC COARSE WARE

Shapes mostly jugs and jars, in a hard micaceous fabric. Also *πίθοι* in the same fabric (e.g. FIG. 17, 7).

¹²⁰ L.H. II. *Alabastron* (PLATE 19b, 3–4). Two fragments, of hard buff clay, with buff slip and decoration in lustrous paint ('Sacral Ivy', as *MP* fig. 36, Mot. 12: 24 (L.H. IIB), cf. *Korakou* fig. 71, *Prosymna* fig. 345 (bottom right), *Chamber Tombs* pl. 5, 7, and especially *BSA* xlviii, pl. 15, 438 Δ', from Chalcis). There were fragments from rims and bases of at least two other alabastra. L.H. IIIB. Sherds from *Deep Bowls* (as *MP* fig. 18, 305) with monochrome decoration inside and linear bands outside.

Protogeometric or Geometric,¹²¹ and classical black glazed ware. On the slopes above the place where the sherds were found there were various pits, which may be the remains of collapsed chamber tombs (marked 'chamber tombs?' on FIG. 10).

ASTERI: SITE TO NORTH

To north of Asteri is a district of small undulating hills, mostly covered in olives. One of these hills, about 2 kilometres due north of Karaousi, is a small Mycenaean site¹²² (about 100 m. by 80 m.), possibly only a farm. To west is a stream bed, normally dry. On the top of the hill are the foundations of a large building, possibly Mycenaean, and there are medieval (or later) buildings on the east slope.

THE VLAKHIOTI AREA

To south-east of Vlakhioti, on the left of the road to Asteri, there is a farmhouse on the high cliffs above the road. Near it a few classical and L.H. III sherds were found.

The low hill 100 metres north of Vlakhioti (at a point slightly west of the village centre) is covered with classical and Hellenistic pottery.¹²³

1 kilometre north-west of Vlakhioti, on the immediate right of the branch road to Myrtia, is a large red hill named Kokkinadha. To west is a small knoll, and in the hedgerow running eastward from this are two large pits (with fig trees growing in them) which might be the remains of chamber tombs. L.H. III sherds were collected on the west slope of Kokkinadha, but none on its summit.

There were some E.H.¹²⁴ and classical sherds on a hill 200 metres north of Kokkinadha, with a farm on its south side.

TSASI

The Mycenaean chamber tomb excavated by Karachalios¹²⁵ lies half a kilometre east of Tsasi village, on the south slope of a hill bordering on the plain (FIG. 11a). The tomb (FIG. 11b, PLATE 20c) is about 4 metres in diameter, and the height of the chamber was probably about 2.50 m. The dromos is preserved for a length of 3 metres. It is 1.60 m. wide, and its eastern wall, preserved to a height of 1.50 m., inclines inwards at the top. A L.H. III jug from the tomb was briefly described by Mackeprang.¹²⁶ It is illustrated here (FIG. 12a)¹²⁷ together with another jug from the tomb (FIG. 12b);¹²⁸ but the full information concerning the contents of the tomb is now irretrievably lost.

The settlement was on the top of the hill into which the tomb was dug. E.H.¹²⁹ is abundant

¹²¹ These are from the bases of *jugs* and *craters*, in the shiny metallic glazed ware typical of the Protogeometric from the Amyklaion. The classical pottery does not appear to antedate the 5th century B.C., and much is apparently 4th century.

¹²² The pottery was all L.H. III, of shapes and fabric similar to those from Karaousi. Predominant were *Craters* and long stemmed *Kylikes*, and there were many L.H. IIIB fragments with linear band decoration.

¹²³ Column drums were reported from Vlakhioti (*BSA* xxiv. 150).

¹²⁴ *Zygouries* Class A II.

¹²⁵ Referred to by Mackeprang, *AJA* xlii (1938) 539, n. 10, as being 'at Zasi near Trinasos' (*sic*). Presumably Mackeprang was misinformed by Karachalios who, incidentally, never published the finds.

¹²⁶ Op. cit. pl. 21, 8.

¹²⁷ It is of hard reddish-buff clay, with a buff slip and lustrous reddish paint. The patterns on the shoulder zone are stylized floral (one is *MP* Mot. 18:113). For the shape cf. *Prosymna* fig. 124, no. 233 and *Chamber Tombs* pl. 47, 9. It is more developed than *Zygouries* pl. 19, 2. The date is L.H. IIIA Late or L.H. IIIB Early.

¹²⁸ Of the same shape and fabric as FIG. 12a. It has a raised ridge at the junction of neck and body (cf. *Prosymna* fig. 327).

¹²⁹ Fine wares predominate, especially *sauceboats* and small *bowls* of 'faience ware' (*Zygouries* Class A II). The slip is more often blue or grey in colour than yellow, and the fabric is soft, usually buff or orange. Hollowed bases are common. There are also several examples of 'Urfirnis' ware (*Zygouries* Class B II), especially from *sauceboats* with high

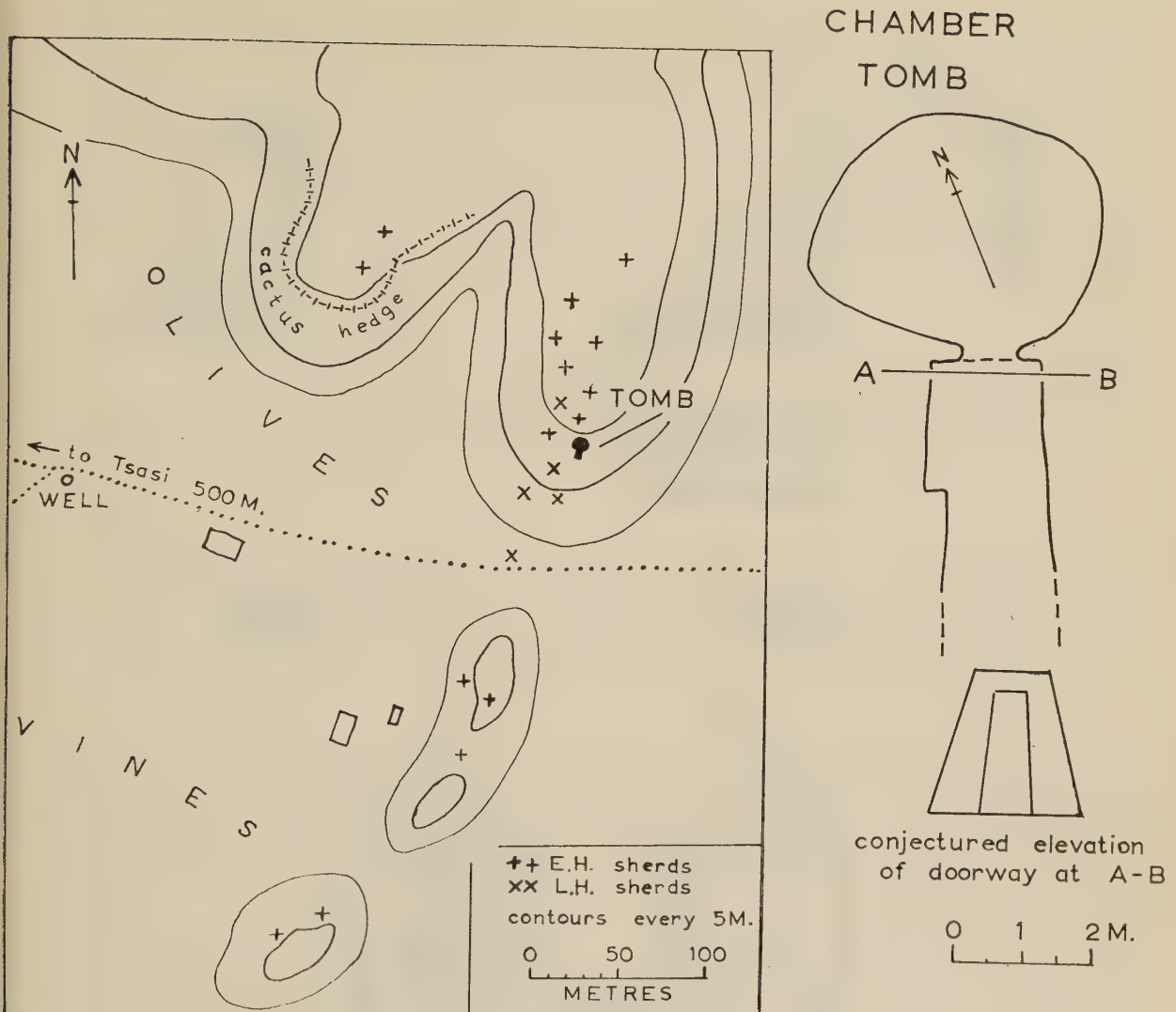


FIG. 11 a-b. PREHISTORIC SITE AND CHAMBER TOMB NEAR TSASI

here and on the smaller hillocks to the south-south-west. There are few L.H. sherds,¹³⁰ and in many cases the E.H. lies directly on the denuded rock, while it is apparent that some sherds at the foot of the hill have been tumbled down the hill by erosion.

hollowed bases (PLATE 22a, 10 = FIG. 15, 12). Some of these have ridges as *Asea* fig. 74, i and j.

A large quantity of 'E.H. II' *pitthoi* and large open bowls are represented (some shown on PLATE 22a, 4-9. PLATE 22a, 4 = FIG. 15, 6; PLATE a, 7 = FIG. 15, 7). We may compare *Eutresis* fig. 146, 5 and figs. 147-8; *Tiryns* iv, pl. 14, 12-19, and pl. 23, 1-4; *Asine* fig. 157, 6 and 8; *Asea* fig. 82, e and g; *Hesperia* xxv, pl. 46f (Lerna); *PAE* 1951, 89-90, figs. 15-17 (Raphina). For PLATE 22a, 4 and 6, compare especially *Tiryns* iv, pl. 23, 8; *PAE* 1951, 90, fig. 178;

and *Asea* fig. 85b. This ware is very common in Laconia, especially on sites in the Helos plain and Elaphonisi (see Part II, forthcoming). Compare PLATE 22a, 1, from Dragatsoula, PLATE 22a, 2, from Asteri, PLATE 22a, 12, from Lekas, south, and PLATE 22a, 11, from Xeronisi.

¹³⁰ All L.H. III. One, with lustrous monochrome paint in and out, seems to be L.H. IIIA-B and, since it was found immediately below the dromos of the tomb and only a few metres farther down the slope, it might easily have been part of the contents of the tomb.

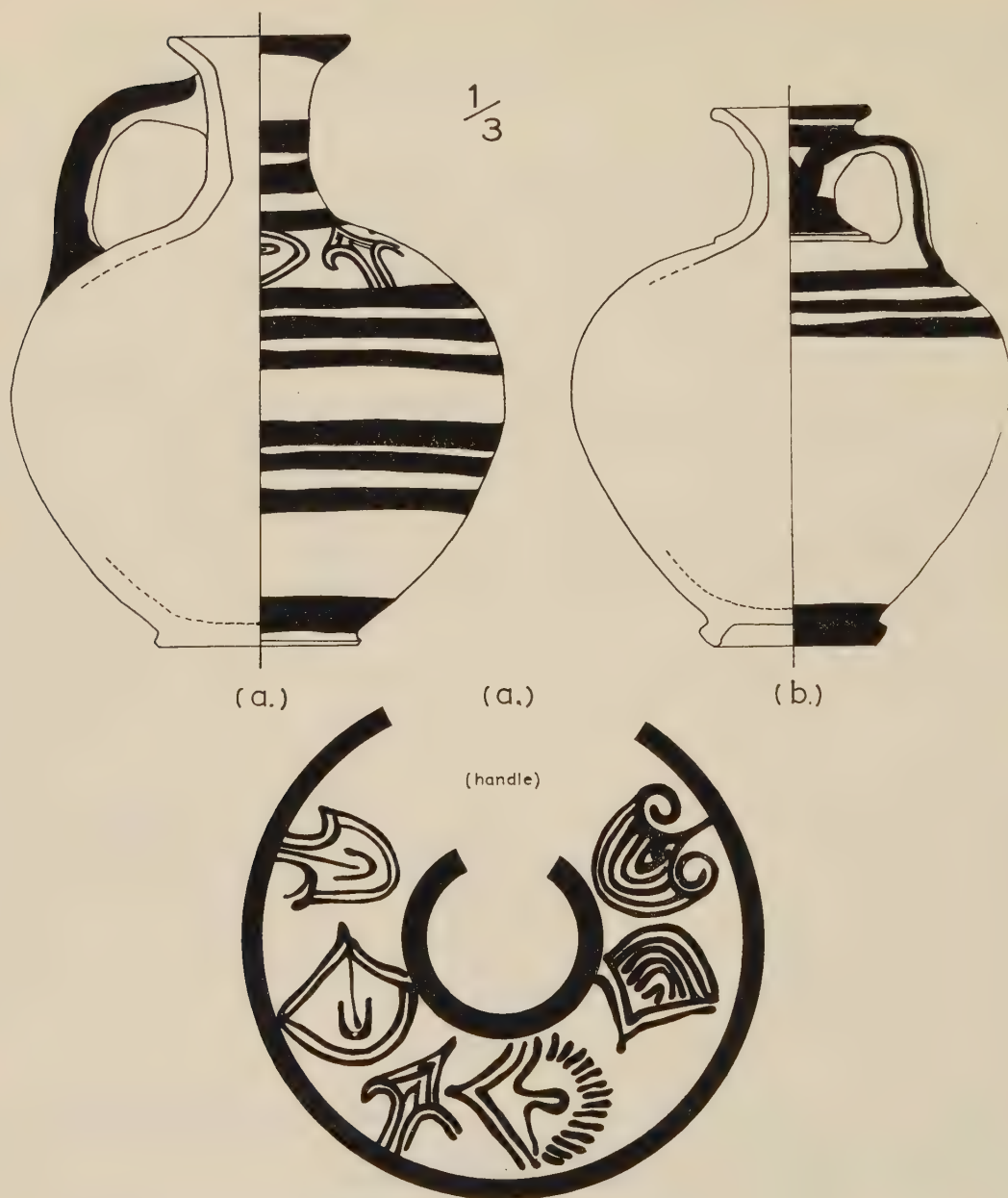


FIG. 12. MYCENAEAN JUGS FROM TSASI

In the area there is a sprinkling of classical pottery, and at a place called Romaika, a hill 200 metres west of Tsasi village, there are classical and Hellenistic tiles and sherds.

SKALA

Among the low hills west of Skala are the six springs of the Vasilopotamos, and the flattish land beside the village is intersected by the resulting streams (now canalized). Between two of

these, on a low knoll, is the ruined chapel of Ayios Nikolaos. The knoll itself had been picked clean of stones and sherds for some agricultural purpose, but among the heaps of debris thus collected was a fair proportion of Helladic sherds. No E.H. was observed, but one M.H. piece of importance, part of the handle and body of a light-on-dark jug (PLATE 17c, 3). The sherd is hand-made, of soft pale ill-cleansed clay, coated with black pigment on which are traces of a pattern in red; the root of the handle is stuck through the wall of the pot in a very primitive way.¹³¹ Another piece of this comparatively rare fabric¹³² was found at Gangania (see below). The L.H. sherds were predominantly L.H. IIIB; shapes recognized were kylikes of 'Zygouries' type, bowls, a stirrup-jar, and a trumpet-mouthed pitcher. This site is unlikely ever to have been of any great extent or importance.

AYIOS IOANNIS, NEAR SKALA

On the way to Sparta from Skala, a short distance to west of the bridge across the Vasilotamos, is the small roadside shrine of Ayios Ioannis (2 on FIG. 19). To north of the road here and raised 5 metres above it is a small terrace on the tip of a spur projecting from the barren hills to north of the plain. Here a few L.H. III and classical sherds were found.

XERONISI

To south of Ayios Ioannis, on the left of the Skala-Sparta road, is a low mound named Xeronisi (3 on FIG. 19; so named because of its resemblance to an island). It rises only 5 metres above the marsh at the highest point, where there is a ruined modern mud brick hut. In the walls of this, and for some distance all around, were several fragments of E.H.¹³³ pottery, and a smaller amount of M.H.¹³⁴ and L.H. III.¹³⁵ The site is now largely ploughed away.

PANAYIOTIS, LEKAS

The district of Lekas comprises the low hills south of the Skala-Krokeai road, in the north-west corner of the Helos plain. About 400 metres south of the road, at the point where it begins to climb towards Krokeai, there is an isolated hillock (PLATE 20d and FIG. 13; marked 'Lekas' on FIG. 19) standing about 15 metres above the level of the surrounding fields, at the edge of the marsh. The ruined farmhouse on its summit is known as Panayiotis (marked 'ruin' on FIG. 13). This is the centre of a considerable Bronze Age settlement. There appear to have been two rings of ancient walls round the site, and their line is followed in part by the modern field walls. In places the rubble foundations of the ancient walls are visible, especially on the west side. They

¹³¹ Compare an E.H. III example from Eutresis (*Eutresis* fig. 164).

¹³² This ware has hitherto been found mainly in the Argolid; at Mycenae, above the shaft-graves by Schliemann (Furtwängler and Loeschke, *Myk. Thongefässe*, pl. 6), and in the bothros by Keramopoulos, *AE* 1918, 52 f.; at Tiryns (Schliemann, *Tiryns* pl. 27, d); at Asine (*Asine* 260, 275, 277, fig. 191). These are all of better quality than the Laconian pieces (see especially the splendid pots shown in *Asine* colour pls. i and ii). Outside the Peloponnese a few sherds were found at Eleusis (Mylonas, *Προϊστορική 'Ελευσίς* 87 f., fig. 65), and Eutresis (*Eutresis* 186). It is to be distinguished from M.H. Class D at Korakou, which is wheel-made, with lustrous paint (*Korakou* 32 f. and pl. 2).

¹³³ *Sauceboats* and *Shallow Bowls* of 'faience ware' (*Zygouries* Class A II) exactly resembling those from Palaio-pyryi, Asteri, and Tsasi.

Sauceboats of 'Urfirnis' Ware. A high hollowed base

(PLATE 22b, 11 = FIG. 15, 13), of hard buff clay with shiny 'Urfirnis' paint, closely resembles the feet of pedestal bowls from Isthmia (*Hesperia* xxvii, 28-29, pl. 12 (a) a-b) and from Askitarion, near Raphina (*BCH* lxxix (1955) 226, fig. 7). An 'E.H. II' rim (PLATE 22a, 11) of a *pthos*, is probably an example of the class with 'thin white wash' (*Asea* 84 and fig. 85; *Eutresis* 83 and fig. 108). It is of gritty clay, with a cream slip. The thumb impressions are similar to those on the sherd from Asteri (PLATE 22a, 2).

¹³⁴ Two sherds of grey Minyan. One is from a large goblet.

¹³⁵ L.H. IIIB-B monochrome painted *Kylikes* and *Stemmed Bowls*. The paint is orange and lustrous, as on examples from Asteri and Ayios Stephanos (below). The fabric is very hard. Other fragments, from closed shapes, have linear band decoration on buff slip. The clay of these is usually coarser. Some *Deep Bowl* sherds with dullish paint are either late L.H. IIIB or early L.H. IIIC.

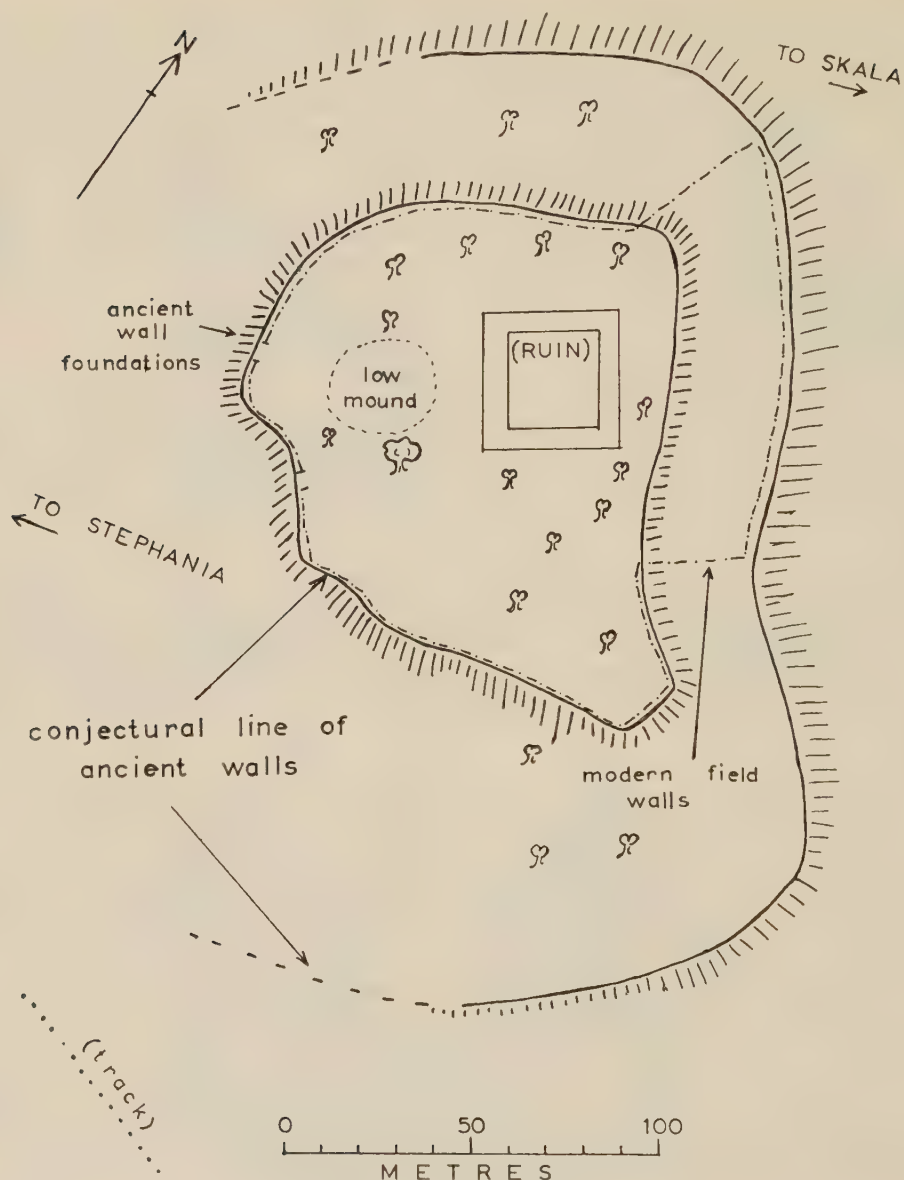


FIG. 13. PANAYIOTIS, LEKAS

appear to have been about 3 metres thick. Surface pottery included some E.H.,¹³⁶ a very little M.H.,¹³⁷ and a great quantity of L.H. III¹³⁸ (and possibly L.H. II) as well as eight fragments of

¹³⁶ 'E.H. II' rims, similar to those from Tsasi. Two fragments from *pithoi*, with incised decoration, one like *Asea* fig. 78f and another with a zigzag on a raised cordon below the rim.

¹³⁷ Three sherds of Imitation Grey Minyan, from *goblets* or *stemmed bowls*. One sherd of Matt-painted ware.

¹³⁸ Mainly *Kylikes*, *Low Stemmed Bowls*, and *Deep Bowls*.

L.H. IIIB predominates, with linear band decoration and bases hollowed beneath. The quality is not so good as at Asteri and Ayios Stephanos (below), and there is the same carelessly applied streaky paint as noted at Ayios Vasilios (above). There were also fragments from *Craters*, and Coarse Ware *jars* and *pithoi*.

Lapis Lacedaemonius, including part of a pounder, some chips of obsidian, and a Mycenaean figurine of unusual and early type (described below). The L.H. sherds were spread over a considerable area, extending a good deal farther than the limits of the outer line of walling, especially to the east and north-east, where a few classical black glazed sherds were also found (though there were none on the site itself).

Terracotta Figurine, female (PLATE 23a, 6, b, and FIG. 18). Head to just below waist only, arms missing. H. as preserved, 0.095 m. Greatest width preserved, 0.05 m. D. of body app. 0.025–0.03 m.

Fabric. Clay: pink,¹³⁹ very fine and well levigated; soft; apparently smoothed but no obvious surface treatment.

Shape. Arms at right angles to shoulders and then curving back to attach to stomach, right above left. Plastic breasts, pointed but small (one missing). Head rounded and thick; eyes plastic (painted). Very long upper torso, very thick at waist.

Decoration. Painted eyes; hatched top of head; no obvious hair. Wavy lines all over back and front, including up to and around face. Band at waist.

This figurine would appear to be one of the earliest known. The only example at all comparable known to me was found in the Pylos excavations of 1957 in the Tholos south of the Palace.¹⁴⁰ These are forerunners of those from Prosymna,¹⁴¹ one of which can be assigned to a L.H. IIIA1 context.¹⁴² The heavy body and plastic arms are the basic criteria of this early group. The actually disengaged arms of this example and the Pylos one are interesting, as is the placing of the right hand above the left. Otherwise many features such as the head and decoration in general are those which continue into the developed Phi type. For a discussion of the evolution of figurine types see *Prosymna* ch. ix, 355. (Mrs. D. French.)

LEKAS, SOUTH

About 200 metres south-west of the site, on a low rise to west of a track leading from Stephanía to the plain, are three large pits, in the sides of which walls of mud brick and stone are visible. In the vicinity are M.H., L.H. III, and classical sherds. Surface pottery continues to occur sporadically along the hillocks on the western border of the plain, south of Panayiotis. The last of these before we reach the marsh on the south of the district of Lekas is a small low mound site ('Lekas (South)' on FIG. 19), whose top is 5 or 6 metres above the level of the marsh. The total area of the settlement is about 150 metres by 120 metres. E.H.,¹⁴³ M.H.,¹⁴⁴ and L.H. III¹⁴⁵ pottery was recovered, and it is likely that there was also Neolithic occupation. There were several fragments of obsidian and purple and green stone implements (two querns and a pounder were recognized), as well as eleven pieces of Lapis Lacedaemonius.

AYIOS STEPHANOS

The site is a conspicuous rocky limestone hill (FIG. 14, PLATE 21a, b) on the eastern end of a spur projecting into the plain from the barren hills between Tsouli and Trinasa (FIG. 19). It is steep on the north and east, while on the west it is joined by a saddle to the higher part of the spur. On the saddle is the small and derelict chapel of Ayios Stephanos. There are traces of rubble foundations of ancient walls (marked 'walling' on FIG. 14) at various points on the north and south sides of the hill, and on the south there was apparently some sort of a bastion. There may have been an upper citadel and a 'lower town' below on the south, but the line of the lower wall is largely conjectural. Surface sherds were very numerous. The site appears to have been

¹³⁹ This clay is similar to that of the local pottery. (R. H. S.)

¹⁴⁰ I am grateful to Professor Blegen for permission to refer to this figurine. The latest pottery from the tomb appears to be of L.H. IIIA date (AJA lxii (1958) 178). (Mrs. D. French.)

¹⁴¹ Nos. 417, 418, 420, Tomb 29. *Prosymna* 80, figs. 155 and 156; No. 1139, *Prosymna* 140, fig. 330.

¹⁴² *ChronMP* 130.

¹⁴³ Fine wares, including 'Yellow Mottled Ware' of *Zygouries* Class A II, similar to that from Asteri and Tsasi. 'E.H. II' rims (e.g. PLATE 22a, 12) and raised bases of 'Urfirnis' sauceboats (e.g. FIG. 15, 14).

¹⁴⁴ Grey Minyan ware and imitations.

¹⁴⁵ Two painted fragments from *stemmed bowls* (L.H. IIIB).

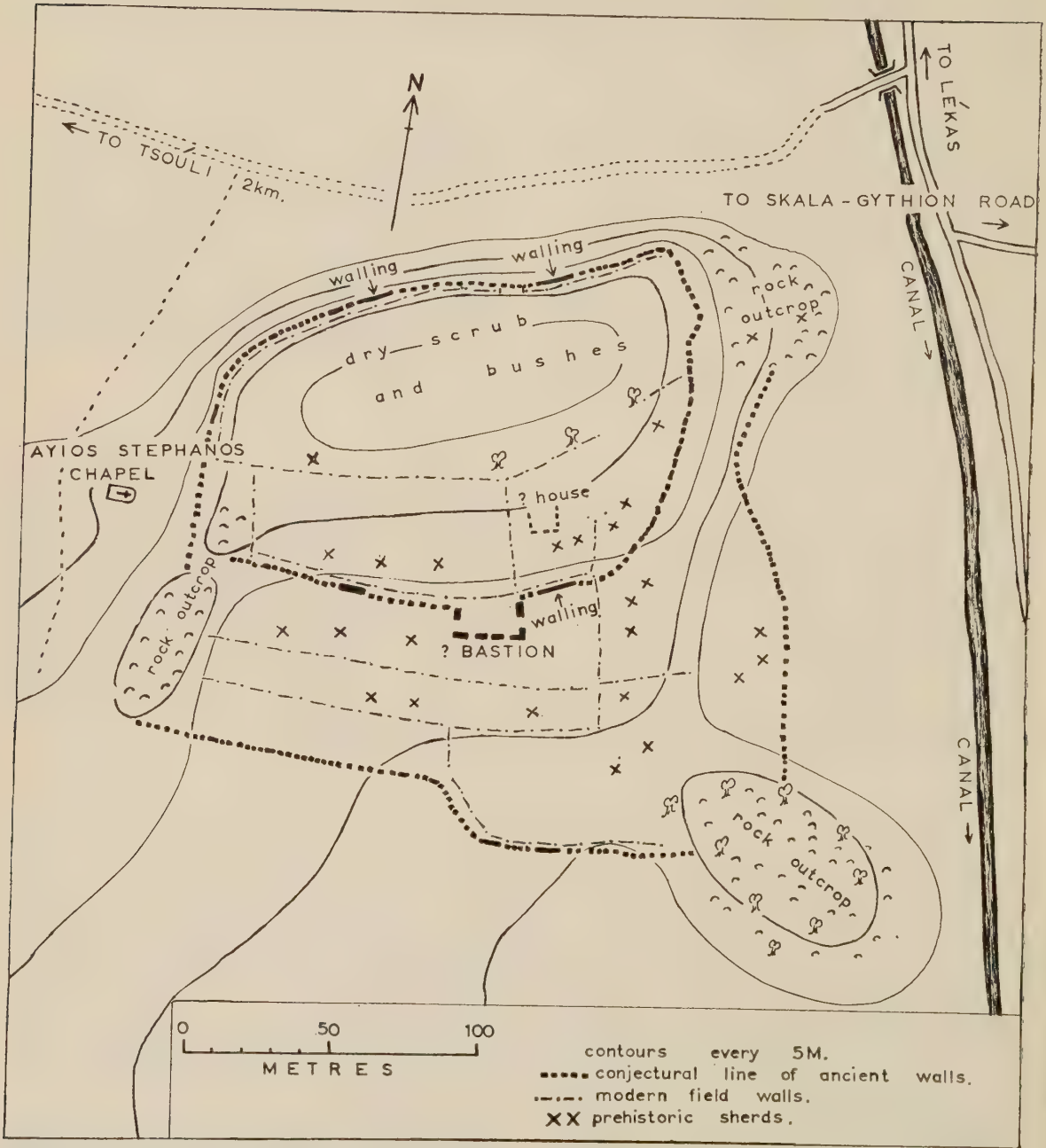


FIG. 14. AYIOS STEPHANOS SITE

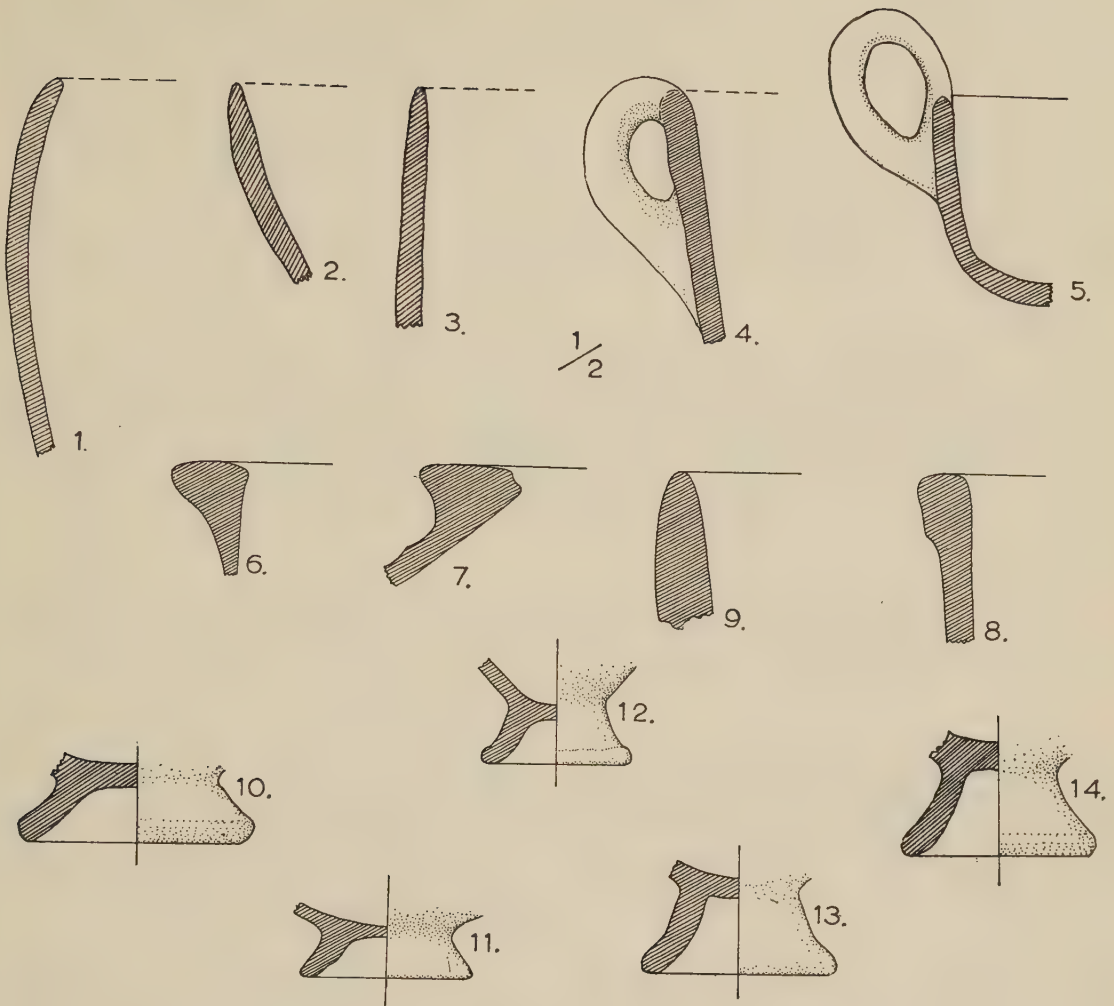


FIG. 15. NEOLITHIC AND EARLY HELLADIC POTTERY FROM THE HELOS PLAIN

settled first in the E.H. period,¹⁴⁶ but the majority of the sherds recovered were M.H.¹⁴⁷ or

¹⁴⁶ A few sherds only of *Zygouries* Class A II, and 'E.H. II' rims (very similar to the Tsasi examples) of very micaceous clay, with cable patterns. Also part of a *Sauceboat* rim of *Zygouries* Class B II; and a *ladle* (FIG. 15, 5) of coarse buff clay, very gritty, with a thick buff slip. It resembles *Tiryns* iv, Abb. 6, and pl. 23, 13. A *Pithos* fragment (PLATE 21d, 1) was found, similar to another from *Palaïopyri* (above).

¹⁴⁷ *Grey Minyan*. Several pieces (e.g. FIG. 16, 3, in local clay). Some are very finely polished, and could be 'imported'.

Imitation Grey Minyan. Many more than the *Grey Minyan*. Typical sherds are FIG. 16, 4-5 and 10, from large *bowls*, in

the hard local clay. There are also incised examples, similar to those from *Asteri* shown on PLATE 20a.

Matt-painted. Ten sherds. Two are shown (PLATE 22b, 4-5). PLATE 22b, 4, is from a *Pithos*. Gritty red clay, with thick cream slip outside and in. Dark brown matt paint. Shape probably as *Karakou* fig. 28; cf. *Hesperia* xxiv, pl. 12 (b).

Light-on-Dark. A fragment from an open shape is shown on PLATE 22b, 6. Of gritty red clay (local). Dark buff slip on interior. Reddish-brown paint on exterior with decoration in added white. This is of 'M.H. III' *Light-on-Dark* ware; cf. *Asine* figs. 191-2, and *Karakou* fig. 47 (the pattern appears to resemble fig. 47, 17).

L.H.¹⁴⁸ (I–III). A classical (or Hellenistic?) miniature votive jar was¹⁴⁹ also found, together with some sherds that may be poor black glazed ware.¹⁵⁰ There were a few obsidian fragments, and ten pieces of Lapis Lacedaemonius, including two pounders and a polisher. The prehistoric pottery came mainly from the south slopes; the summit, where there seems to be a less depth of soil, is mostly covered with scrub. A mass of loose stones on the site indicates a considerable number of ancient buildings, and the unshaped character of the stones suggests rough stone foundations and mud brick walls.

The size of the settlement, and its excellent position commanding the western side of the Helos plain and the sea approaches to the main route inland (via the Eurotas valley) to the Sparta plain, mark it out as the most important of the many M.H. and L.H. settlements in the Helos plain.

About 200 metres south, on the east slopes of the hills bordering the plain, there are L.H. III sherds on a terrace below a limestone outcrop, and these may possibly mark a Mycenaean cemetery. A kilometre south-west of this point, on the rocky slopes bordering the plain, there are wheel tracks worn in the rock, running north to south, with a gauge of the same dimensions as those between Tsasi and Grammoussa, described above. Near by are foundations of ancient houses hewn into the rock, together with classical tiles and black glazed pottery.

THE HELOS PLAIN: SUMMARY

As might be expected, the plain has proved to be very rich in prehistoric settlements. Apart from the fertility of the district, it is the natural point of entry into Laconia for settlers coming by sea. The Neolithic sites so far discovered are all on the eastern side of the plain (Ayios

¹⁴⁸ L.H. I–II

Yellow Minyan (FIG. 17, 1–2 and 12). FIG. 17, 1 is from a low *Stemmed Bowl* or *Carinated Cup*. The clay is hard and well levigated, buff-orange. Light brown slip, burnished. Shape as *Korakou* fig. 58 or *Prosymna* fig. 641. FIG. 17, 2 and 12 are of similar clay, but polished only. From *Goblets*.

Imitation Yellow Minyan (?). FIG. 17, 5, from a large *bowl*. There is an unusually large quantity of L.H. I–II patterned ware.

'Vaphio' Cups (PLATE 21d, 2–6). PLATE 21d, 2–4, have 'ripple pattern' (MP fig. 73, Mot. 78), cf. *Korakou* fig. 53, 3, fig. 62, 10, and pl. 4, 5–6. PLATE 21d, 6, has part of a linked spiral decoration as, e.g., *Korakou* fig. 53, 9.

'Palace Style' (PLATE 21d, 7.) *Large Jug* or *Amphora*. Lustrous decoration, cf. *PM* ii. 122, fig. 58a.

L.H. IIIA

Shallow Rounded Cup (PLATE 21d, 8). Part of base (shape as MP fig. 13: 220, cf. *Prosymna* fig. 125: 258 and *Zygouries* fig. 131 (bottom right).

L.H. IIIA–B

The period from L.H. IIIA to the middle of L.H. IIIB appears to have been the 'floruit' of Ayios Stephanos. Typical of this period are many *Kylix* and *Stemmed Bowl* fragments with fine lustrous monochrome paint. The fabric is always extremely fine and hard, varying from light buff to the purple of the M.H. Minyan wares. Splaying rims and 'disk' bases are common. Also typical are *Deep Bowl* and *Crater* fragments of similar fabric and paint, with monochrome painted interiors (e.g. PLATE 21d, 9–10). A typical *Kylix* base is illustrated (PLATE 21d, 14).

L.H. IIIB

Kylikes and *Deep Bowls* are the most common shapes in

the painted ware. Most of these have monochrome painted interiors and linear bands on the exteriors. Patterned fragments include: PLATE 21d, 11, from a *Deep Bowl*. Pattern similar to MP fig. 72, Mot. 75: 11. PLATE 21d, 12, from a *Deep Bowl*. Pattern includes vertical wavy lines (MP Mot. 53:32). PLATE 21d, 13, from a *Kylix*. Pattern as PLATE 21d, 12 above. PLATE 21d, 15, Base of a *Tankard*. Buff slip and thin bands of lustrous paint round base below. Part of a whorl-shell design (as MP Mot. 23). Highly polished.

L.H. IIIC

Some sherds of rather poor fabric (mostly grey) and dull paint. These are probably early IIIC. To the same period might be ascribed PLATE 21d, 16, from a *Deep Bowl*, with monochrome paint on interior, and part of a panelled pattern on exterior (antithetical spiral with central triglyph, similar to MP Mot. 50:11).

L.H. IIIB–C

Most of the plain ware is probably IIIB, but some may be early IIIC. The commonest shapes are *angular bowls* (MP fig. 17, 267) and *shallow bowls* with high stems (MP fig. 17, 266).

¹⁴⁹ *Miniature Three-handled Jar* (FIG. 17, 9). Nearly complete profile. Part of top handle missing. H. (preserved) 0.08 m. W. 0.04 m. D. of base 0.025 m. Coarse buff clay, not well fired. Late classical or Hellenistic miniature votive jar; cf. *AM* lii, Taf. 15, 31–32, and pp. 58–61 (from the Amyklaion), and *BSA* xlv (1950) 292, nos. 15 and 16 (pl. 29) from the Sports-ground site at classical Sparta.

¹⁵⁰ They are not readily distinguishable from the latest L.H. painted wares in most cases. Two sherds from *bowls* have the shiny metallic glaze of Laconian Protogeometric, but they cannot be securely dated.

Strategos and Asteri), although it is possible that there was Neolithic occupation on the low mound site of Lekas, south. E.H. sites are widespread, with the chief centres at Asteri and Tsasi and the Lekas district. The pottery is all of the well-known 'E.H. II' varieties, being especially similar to wares from the Argolid, Corinthia, and coastal regions of Attica. M.H. wares are

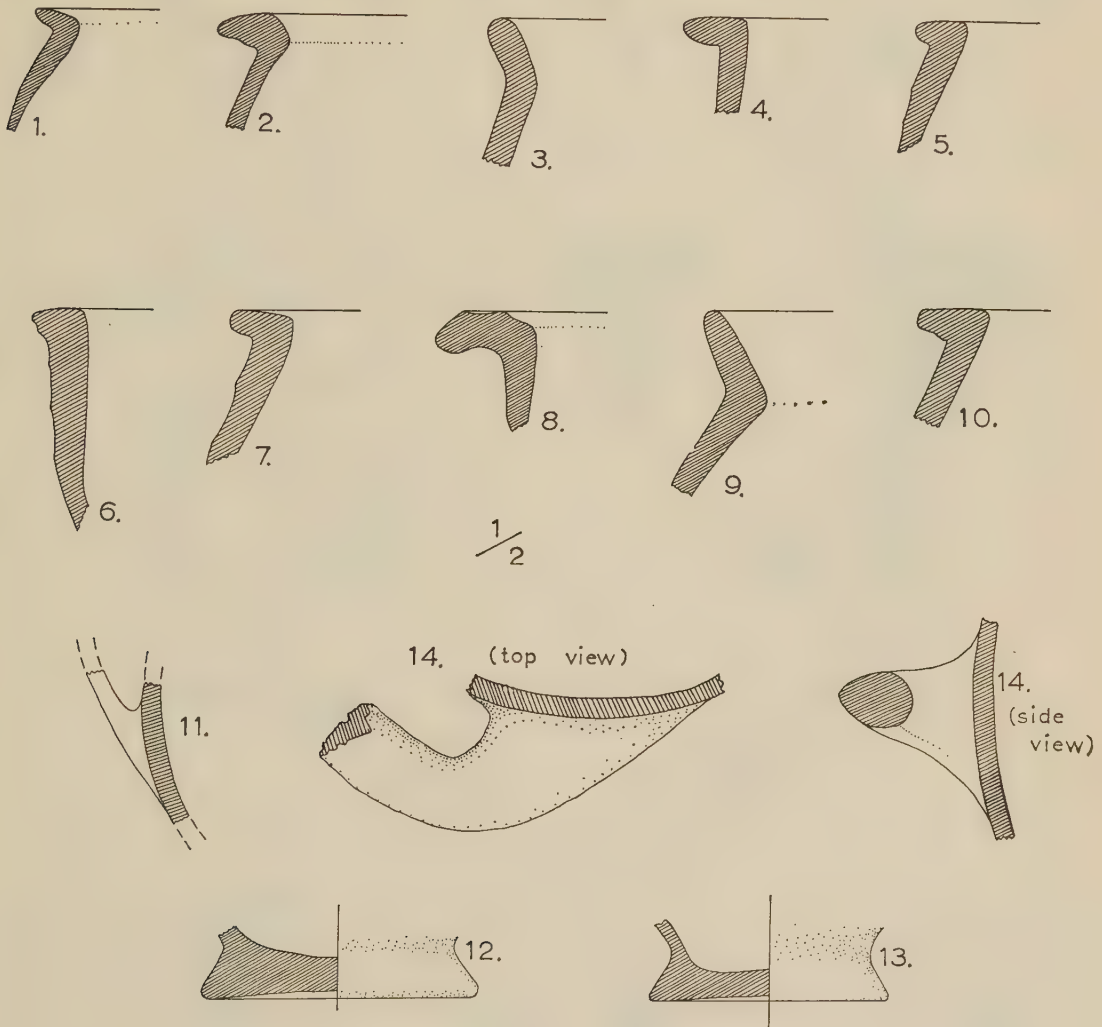


FIG. 16. MIDDLE HELLADIC POTTERY FROM ASTERI AND AYIOS STEPHANOS

particularly abundant; the two main centres, Asteri and Ayios Stephanos, retained their importance throughout the L.H. period, when subsidiary centres begin to appear at Panayiotis, Lekas, Tsasi, and Ayios Strategos. The new sites¹⁵¹ at Asteri, north, Vlakhioti, and Ayios Ioannis near Skala seem to be evidence of expansion in L.H. III.

Of the L.H. sites Ayios Stephanos is the largest, and, despite the fact that it is not on the eastern side of the plain, where Pausanias placed classical Helos (iii. 22. 3), it is perhaps the

¹⁵¹ The surface conditions at these sites indicate that there was no M.H. occupation, but this cannot, of course, be proved without excavation.

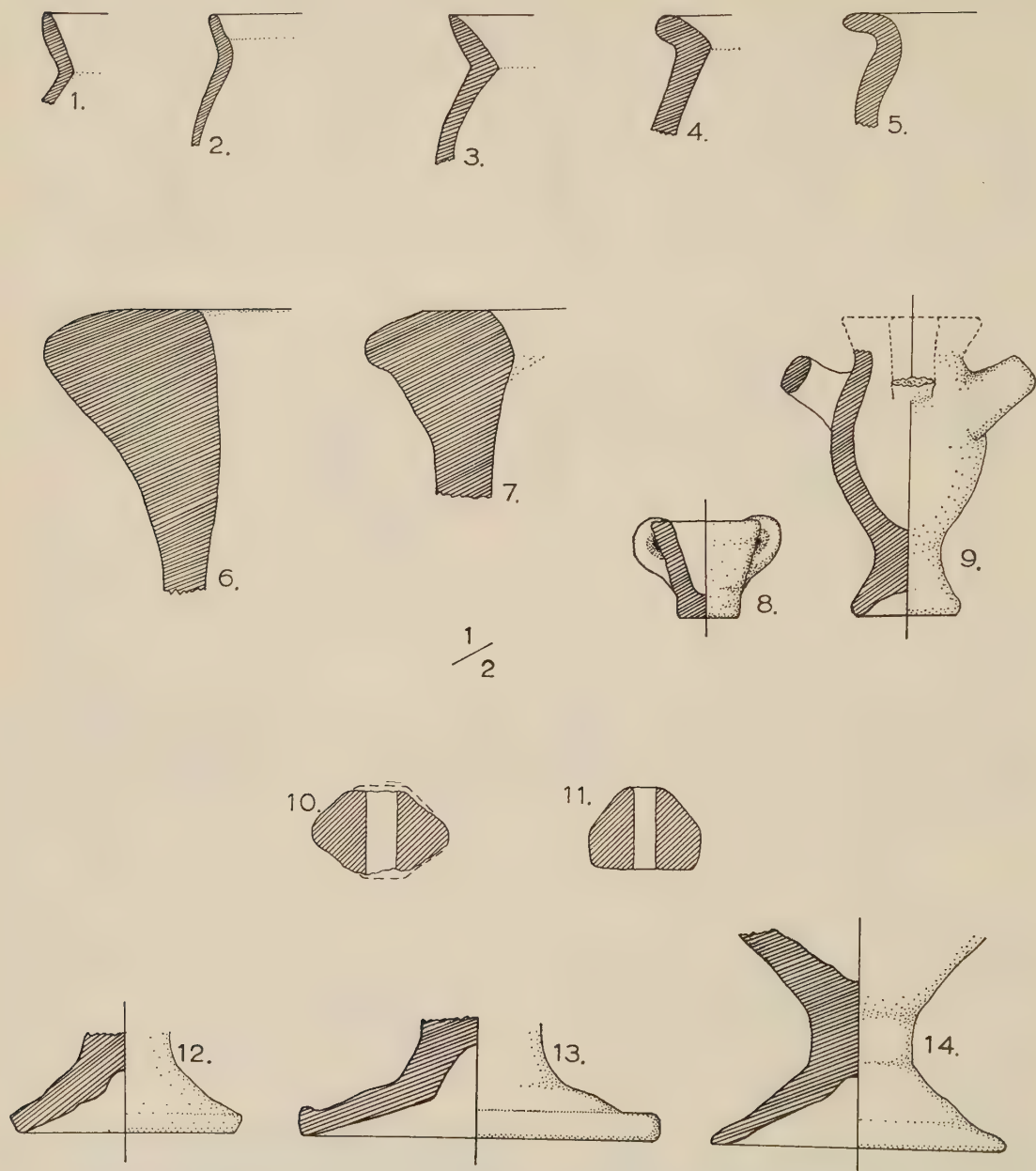


FIG. 17. MYCENAEAN AND LATER POTTERY FROM ASTERI AND AYIOS STEPHANOS

most likely to have been the Homeric *Ἑλος*, a 'city on the sea',¹⁵² although the site at Asteri (Karaousi), which conforms better with Pausanias's location, cannot be absolutely ruled out.

¹⁵² *Il.* ii. 584. Ayios Stephanos was probably on the sea in Mycenaean times.

The distance of 80 shades between Trinasos and classical Helos¹⁵³ would actually bring us to the site of Kokkinia (? Acriae)¹⁵⁴ if we assume that Pausanias travelled by land. But it is more probable that he went by sea, in which case he may well have overestimated the distance, as in several other cases.¹⁵⁵ The abundant classical, Hellenistic, and Roman remains in the district

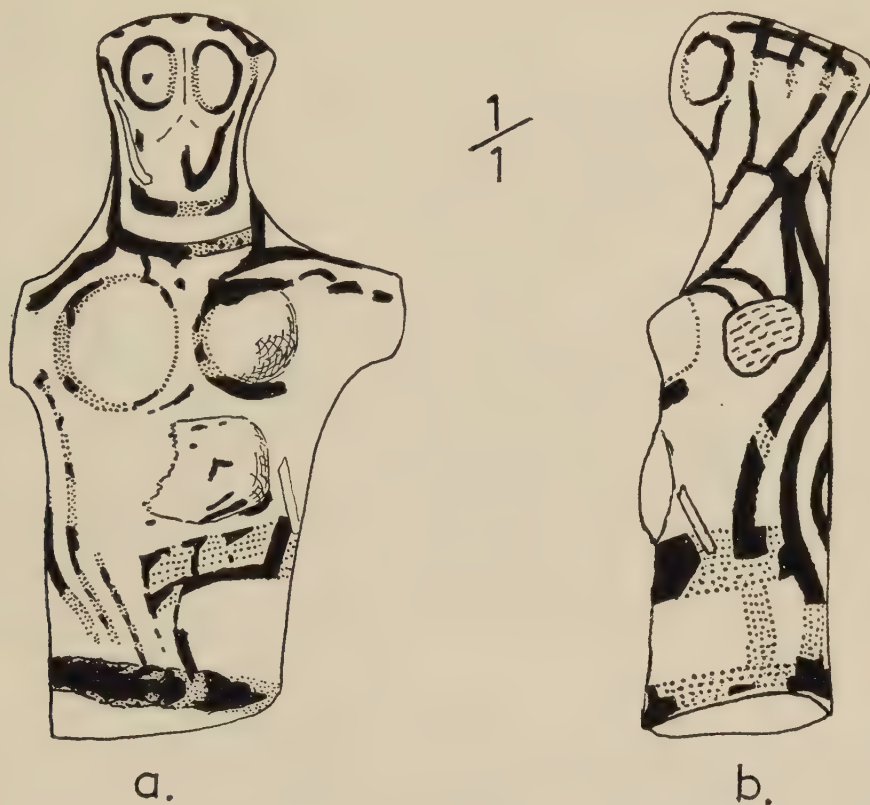


FIG. 18. MYCENAEAN FIGURINE FROM LEKAS (see p. 97)

between Vlakhioti and Vezani, especially at Manolaki and Ayios Ioannis near Vezani (see p. 87), indicate that classical Helos lay in this region.¹⁵⁶ The remains are nowhere in sufficient quantity to suggest the presence of a city or even a large town, and it is more likely that classical Helos was a synoikismos of scattered villages and farms. The modern agricultural economy, with the exception of the recently developed rice and cotton industries in the marsh itself, centred on Skala and modern Helos, follows exactly the same pattern.

EASTERN VARDHOUNIA

KARNEAS, KROKEAI

On the hill known as Karneas (5 on FIG. 19; the hill measures about 120 m. by 60 m. on the top), 300 metres south-east of the village of Krokeai (Levetsova), Mr. Christou excavated a

¹⁵³ Paus. loc. cit., cf. *BSA* xv. 161 f.

¹⁵⁴ Cf. *BSA* xiv. 162.

¹⁵⁵ Cf. *BSA* xiii. 243 and Frazer iii. 402 on the distance between Messa and Oetylus.

¹⁵⁶ Cf. *BSA* xxiv. 150.

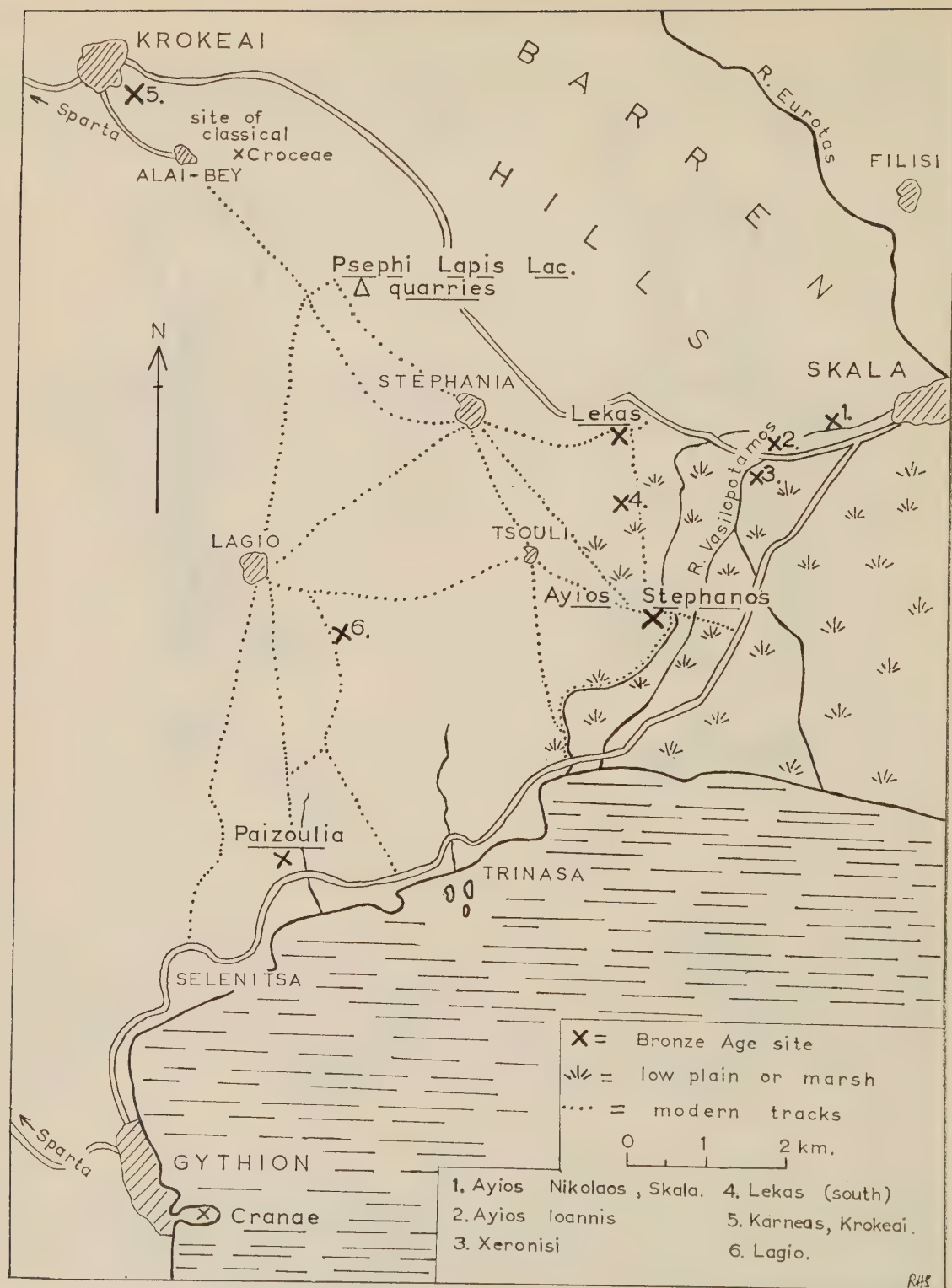


FIG. 19. EASTERN VARDHOUNIA AND PART OF THE HELOS PLAIN

plundered Mycenaean tomb:¹⁵⁷ a large shaft-grave, about 3.0 m. by 1.50 m. and 2 metres deep, covered over with stone slabs.¹⁵⁸ Near the tomb, to the north and north-east on the same hill, are traces of what appear to be the dromoi of chamber tombs. The settlement must have been also on the same hill, where there are abundant L.H. III sherds¹⁵⁹ and several chips of obsidian.

LAGIO

In the valley which leads down to the shore near Trinasa, on a small isolated hill (6 on FIG. 19) about 1 kilometre east-south-east of Lagio village, which is just visible on the higher hills to the west, there is a settlement of the E.H.¹⁶⁰ and L.H. III¹⁶¹ periods. It lies near the track from Krokeai to Trinasa, a little to the east of it. The hill is about 15 metres high, and its top surface measures in all 110 metres north to south by 80 metres east to west. It has remains of ruined stone huts on the tip, and cultivated terraces on the south side.

PAIZOULIA

Inland from the remains of Roman houses on the shore at Gliphadha¹⁶² and a little to north of the road from Gythion to Trinasa, in the district of Valtaki, is a hill named Paizoulia (FIG. 19), about 20 metres in height and with a top surface of 170 by 80 metres. On the west side, where it is connected by a saddle to higher hills, there is a farm; and on the top of the hill farther east are remains of an Italian emplacement of World War II. On the southern slopes E.H.,¹⁶³ M.H.,¹⁶⁴ and L.H. II–III¹⁶⁵ pottery was found, the last predominating. At the foot of the hill on the east are the ruins of a Roman or early Byzantine building of considerable size, with masonry (including tile bonding courses) a metre thick, preserved to a height of 3 metres in parts. The fields to south and east of the hill are full of classical, Hellenistic, and Roman sherds. To south-west, 200 metres from the hill, a section of a squared terracotta water pipe (0.50 × 0.50 m.) has been revealed, which seems to lead towards the Roman houses on the shore.

LAPIS LACEDAEMONIUS: A SURVEY

The stone is a green porphyry, flecked with light-green rectangular crystals. It is dark in appearance, sometimes green, and sometimes purplish in colour, and it is extremely hard to cut.¹⁶⁶ It is easily recognizable, and its only source, so far as we know, is certain small and well-defined areas in Laconia. These are shown on Philippon's geological map of the Peloponnese.¹⁶⁷ He marks a large deposit to south-east of the modern Krokeai (Levetsova), with its centre at the hill of Psephi near Alai-Bey, the site of the ancient Croceae. In fact the extent of this deposit is

¹⁵⁷ *JHS* lxxvi (1956) Suppl. 15; *BCH* lxxx (1956) 277. Mr. Christou informs me that the pottery was of the L.H. II–III period. (R. H. S.)

¹⁵⁸ It resembles in construction a tomb at Eleusis (*Ergon* for 1956, 17 and fig. 14).

¹⁵⁹ Mostly from *Deep Bowls* and *Stemmed Bowls*. A pithos fragment is illustrated (FIG. 17, 6). It resembles others from Asteri (FIG. 17, 7) and Mavrovouni, near Gythion (see Part II, forthcoming).

¹⁶⁰ Two bases of small *pedestalled bowls* (cf. *Eutresis* fig. 131) and sherds of 'Yellow Mottled Ware' (*Zygouries* Class A II) from *sauceboats*, as well as sherds of *Zygouries* Class B II. The pottery closely resembles that from Tsasi.

¹⁶¹ A *Kylix* fragment (plain), and a rim from a large *storage jar* of wheelmade micaceous fabric. The L.H. occupation is so slight that it may only have been a small

farm in this period.

¹⁶² *BSA* xiii. 230.

¹⁶³ Handmade coarse wares (*Zygouries* Class D and E). One sherd is similar to *Eutresis* fig. 168.

¹⁶⁴ A high swung handle from a goblet of *Imitation Minyan Ware* (shape as *Korakou* fig. 18) and the rim and handle of a coarse-ware vessel (as *Asea* fig. 103, c or f).

¹⁶⁵ L.H. II. A sherd from a 'Vaphio' *Cup*, with a central rib, in lustrous monochrome paint. L.H. III. *Deep Bowls* and *Kylikes*, mostly with monochrome paint on interior and streaky decoration on exterior (cf. sherds from Ayios Vasilios and Lekas above). These are L.H. IIIA–B. Only a few have band decoration. Long-stemmed *Kylikes* with hollowed bases predominate.

¹⁶⁶ A good description of the stone is given by Frazer iii. 374.

¹⁶⁷ *Geologische Karte des Peloponnes* (1891) Blatt iv.

less than marked, mostly in the vicinity of the ancient quarries at Psephi.¹⁶⁸ Smaller outcrops are marked at Phoiniki, Sikea, to north of Velies, and near Apidia;¹⁶⁹ but it is not always possible to be certain whether these are of exactly the same stone.¹⁷⁰

The area of Stephania, Levetsova, and Alai-Bey is littered with traces of the ancient working of Lapis Lacedaemonius, and the modern field walls in the area of the city of Croceae are full of fragments or blocks of the stone, some of them quite large. The most extensive of the quarry pits (probably Roman) lie on either side of the track from Alai-Bey to Stephania, immediately west of Psephi. It is probable, however, that the Bronze Age (and classical?) quarries were on the upper slopes of the hill, where some outcrops of the stone have been completely mined away.

Evans thought that part of the 'Lapidary's Store' of large partly worked or unworked blocks of Lapis Lacedaemonius found in the Palace at Knossos¹⁷¹ should be dated M.M. IIIB. But it would surely be more correct to assume, unless the contrary can be demonstrated, that the blocks are L.M. II, as the unfinished stone vases in the 'Sculptor's Workshop'¹⁷² above the 'Lapidary's Store'. One would expect that the M.M. IIIB stocks of the stone (if they existed) would have been used up by L.M. II! Apart from this, there are two sealstones of Lapis Lacedaemonius from Crete assigned by Evans on stylistic grounds to L.M. I (nos. 4, 5, below); while the fine bowl from the Isopata Tomb (no. 2 below) may be L.M. I if it is an heirloom as Evans thought,¹⁷³ or L.M. II if not. The vase from the House of Shields at Mycenae (no. 11 below) is probably L.H. IIIB,¹⁷⁴ and the Rhyton from the 'Rhyton Well' (no. 10 below) is probably L.H. III.¹⁷⁵ It can be said, therefore, that we possess definite evidence that the quarries were in use by the L.M. II period, and it is possible that they were opened up earlier, perhaps in the latter part of the Middle Helladic period.¹⁷⁶

LATE BRONZE AGE FINDS OF LAPIS LACEDAEMONIUS

A. Crete

1. Knossos, 'Lapidary's Store'

(*BSA* viii. 78; *PM* iii. 268 ff.)

Partly worked or unworked blocks: ? L.M. II

2. Knossos, Isopata Tomb

(*Archaeologia* lix. 146, pl. 98, S. 1, and fig. 124; *PM* i. 87 f., fig. 56; iii. 270, fig. 182.)

Carinated Bowl: L.M. I or L.M. II

3. Psychro Cave

(*PM* iii. 316, fig. 221; iv. 589, fig. 587.)

Sealstone (Minotaur and symbols): Late Minoan

4. Crete

(*PM* iv. 443, fig. 368.)

Sealstone ('Minoan Genius' leading Bull): ? L.M. I

5. Kydonia

(*PM* i. 708, fig. 532; iv. 467, fig. 392. Now in the Benaki Museum, Athens.)

Sealstone ('Youthful Male God', &c.): ? L.M. II

6. Central Crete

(*PM* iv. 560, fig. 525.)

Sealstone (Bull with head reversed): Late Minoan

7. Knossos, Harbour Town

(*PM* ii. 238.)

Vase: Late Minoan

Evans suggested (*PM* iii. 269) that the stone might have been used in thin slabs for the variegated wall decoration popular in M.M. III (?) times.

B. Mainland Greece

(Finds marked * have not previously been recognized.)

8.* Mycenae, Chamber Tomb

(Tsountas, *AE* 1888, 140 and pl. 105; from Tomb 9. Now in the National Museum at Athens.)

Sealstone (two goats or antelopes facing left and right, one being partly hidden behind the other): ? L.H. III.

¹⁷² *PM* iv. 896 ff.

¹⁷³ *PM* iii. 270.

¹⁷⁴ Since the whole of the 'life' of the House appears to fall into the L.H. IIIB period (*TAPA* 48, part i (1958) 5-6).

¹⁷⁵ Since most of the pottery from the well is L.H. III (*BSA* xxiv. 205).

¹⁷⁶ The small cylinder from Platanos (Xanthoudides, *The Vaulted Tombs of the Mesara* (1924) 101, and pl. 11, no. 1905) is not of Lapis Lacedaemonius, and the stone is black, not green. It is presumably Egyptian stone.

¹⁶⁸ Paus. iii. 21. 4; cf. Pliny, *NH* xxxvi. 55. The 'modern' references to the Psephi quarries were collected in *BSA* xvi. 68 f. There is a recent short discussion by Professor Wace, in *BSA* l (1955) 182; cf. Wace, *Mycenae* (1949) 136.

¹⁶⁹ Philippson, *Der Peloponnes* (1891) i. 215.

¹⁷⁰ Two small lumps were found at Apidia, but no natural deposits were located.

¹⁷¹ *PM* iii. 268 ff. This date is not universally accepted (cf. *BSA* l. 182, and li. 168).

9.* Mycenae, Chamber Tomb (unpublished)

Two Sealstones. These are in the Athens National Museum, in a case containing objects from chamber tombs at Mycenae excavated from 1892 to 1899. The design on one of the stones is unrecognizable. The other is probably the one described by Stais (*NM* 96, no. 3138) as 'Jasper. Two lions disputing their prey, a horned beast lying on the ground.' Mycenaean.

10. Mycenae, Rhyton Well

(*BSA* xxiv. 201, pl. 11; Wace, *Mycenae* 68, fig. 86.)

Rhyton: ?L.H. III.

11. Mycenae, House of Shields

(*BSA* l. 182 and pl. 23a and b; cf. *TAPA* xlviii. I (1958) 6.)

Tall Jar: ?L.H. IIIB.

12. Mycenae, near Tsountas' House

(*BSA* l. 182 and pl. 23c.)

Nodule, with signs of working: Mycenaean.

13. Vaphio

Two Bowl Fragments. Both are surface finds from the hill. One is in the Sparta Museum (*SMC* 222), and the other was in the possession of Dr. Kommenos at Xerokambi.

14.* Dendra, The Royal Tomb

Two Sealstones. These are among the 'Burial Gifts of the King' (Persson, *The Royal Tombs at Dendra* (1931) 33e (wild goat) and f (lion)). They are illustrated, op. cit. pl. 19, being respectively on the left of the top row, and on the right of the third row down. Their casts are shown below on the same plate. There is some doubt as to the date of the Tomb (op. cit. 24, 66), but the possibilities appear to be either the L.H. II or the L.H. III period.

C. Islands

15.* Rhodes, Ialysos

(*Ann.* vi-vii. 165, no. 2905, from Tomb 31 at Makra Vunara. Now in Rhodes Museum.)

Sword Pommel: ?L.H. IIIA.

The discoveries of unworked or partly worked blocks of Lapis Lacedaemonius of large size at Knossos (no. 1 above) and Mycenae (no. 12 above) indicate that the manufacture of fine vases, seals, &c., made from this stone did not take place near the quarry site itself. The surface finds of the stone from Bronze Age sites in Laconia are with one exception (Vaphio), of roughly worked or unworked stones;¹⁷⁷ while the number of these at Lekas and Ayios Stephanos supports the hypothesis that these sites lay on or near the route by which the crude stone was conveyed from Psephi to the sea for transport to Knossos and Mycenae, &c. It is likely that this route first followed the line of the present track from Psephi to Stephanía (see FIG. 19), and from there proceeded to Ayios Stephanos. The stone would then have been shipped direct (if Ayios Stephanos lay on the sea in Mycenaean times), or conveyed to the shore by means of a stream or canal on the western side of the Helos plain.

HELEN WATERHOUSE
R. HOPE SIMPSON

¹⁷⁷ Surface finds from Laconian sites:

Vaphio. Two bowl fragments (no. 13 above).

Apidia. Two small lumps.

Lekas, north. Eight small lumps, one a pounder.

Lekas, south. Eleven small fragments, all unworked.

Ayios Stephanos. Ten lumps, of small to medium size, including two pounders and a polisher.

Cranae. Three small unworked lumps.

CYPRUS

DISTRIBUTION OF MINOAN OBJECTS

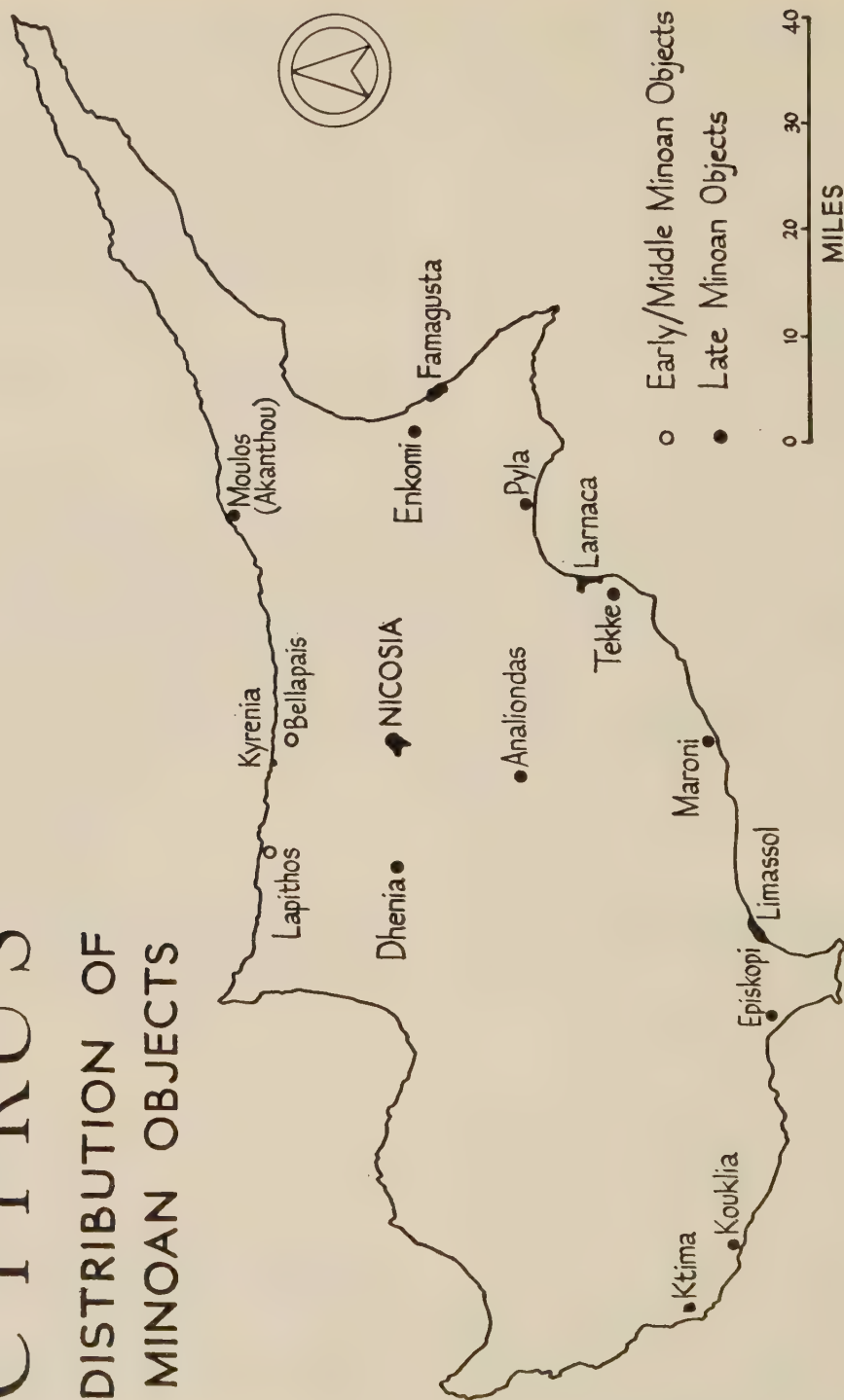


FIG. 1

MINOIKA IN CYPRUS

(PLATES 25-30)

THIS brief study of objects of Minoan origin found in Cyprus seeks to draw attention to a branch of Cypriot studies which for many years has remained neglected. Since the time of Forsdyke's often criticized pioneer study,¹ no attempt has been made to collect the material under a single heading, or to comment upon its significance. Instead, in not a few cases the Minoan origin of these objects has been overlooked, and they are classified as Mycenaean or Levanto-Helladic.²

Fashions in archaeology are well known to be arbitrary. General interest in Minoan studies has been on the wane in recent years, to the considerable advantage of the prehistory of Mainland Greece. This merely reversed a state of affairs which obtained in the years that saw the publication of *The Palace of Minos*. Now, however, there seems good reason to hope that a more balanced outlook on both Crete and Greece is coming into being. The moment is opportune, so the writers believe, for a contribution towards a fuller understanding of Minoan overseas relations.

After this brief introduction, there follows a catalogue of the objects found in Cyprus³ which are considered by the writers to be of Minoan fabric and origin. The catalogue is divided very broadly into (1) Middle Minoan and (2) Late Minoan objects. Amongst the former will be found one vase and several bronzes, while the latter lists only vases and fragments. The writers are very grateful to the Rev. V. E. G. Kenna for contributing a note on the seal impressions on 35.

While some items in the catalogue have not been published before, several will be familiar to students of Cypriot prehistory. Moreover, in the case of some of the previously published objects, the writers claim no originality in detecting their Minoan origin. Either this was recognized by the original finders in their publications, or later writers have made the identification. As far as possible, reference will be made in the footnotes wherever earlier identification is on record.

The majority of the objects have been studied at first hand by one or other of the writers. Where this has not been possible, a note to that effect is attached. A Distribution Map (FIG. 1) is included. The reservation must be made that the writers have not scrutinized the material from recently excavated settlement sites in Cyprus, and, in particular, the mass of stratified sherds from Enkomi.⁴ The catalogue should be viewed very much as a minimum statement of the distribution of Minoika in Cyprus.

CATALOGUE

I. MIDDLE MINOAN OBJECTS

1. Bridge-spouted jar (FIG. 2). Lapithos, *Vrysis tou Barba*⁵
Tomb 6a, No. 16.⁶ University of Pennsylvania Excavation,

1931. Cyprus Museum.

The vase is very fully described and discussed by Miss

¹ *JHS* xxxi. 110 ff.

² For the meaning of the latter term cf. E. Sjöqvist, *Problems of the Late Cypriote Bronze Age* 92 ff.; A. Furumark, *The Mycenaean Pottery* 9 f.

³ The writers wish to express their gratitude to Dr. P. Dikaios, Curator of the Cyprus Museum, for permission to publish 4, 8, 17-20, 24, 27, 28, 35, and 36. They are equally indebted to Dr. J. L. Benson for permission to publish 25. They gratefully acknowledge permission given by the Trustees of the British Museum to reproduce PLATES 26a, b, c; 27a and d, 28d, and FIG. 7. PLATES 27b and c are

reproduced from photographs kindly supplied by the Cypernsamlingarna, Stockholm. Mr. J. R. Stewart is thanked for the loan of the photograph from which PLATE 25b was made.

⁴ This material is at present being prepared for publication by Dr. Dikaios.

⁵ The main sources for the Lapithos, *Vrysis tou Barba* cemetery are: Gjerstad and others, 'Lapithos: The necropolis at *Vrysis tou Barba*', *SCE* i. 33 ff., and Sir John Myres, *BSA* xli (1940-5) 78 ff.

⁶ Cf. V. Grace, *AJA* xliv (1940) 10 ff.

Grace in the original publication.⁷ The piece was dated Middle Minoan Ia by Pendlebury.⁸ The tomb group appears to be of Early Cypriot III date.⁹

2. Dagger blade (PLATE 25a). Bellapais, *Vounous* Tomb 19, No. 89.¹⁰ Cyprus Museum Excavation, 1931-2. Cyprus Museum.¹¹

L. 0.248. Greatest w. of blade, 0.05. Greatest thickness of midrib, 0.005. In very fair condition, apart from some chipping at the butt. The blade is of elongated ogee shape, with broad butt, the top of which is concave. The original number of rivet holes is obscure, owing to the chipping, and only two can be made out with certainty. The midrib is of

where they converge. Technically this is a splendid object which can only have been produced in a very skilfully made mould. The nearest parallel is a very fragmentary weapon from Tholos K at Kalathiana in the Mesara.¹² As Dikaios points out,¹³ the relief line ornament is identical with that on the *Vounous* weapon. Pendlebury assured Dikaios¹⁴ that the *Vounous* weapon should be dated Early Minoan III-Middle Minoan I. Xanthoudides dated Tholos K to Early Minoan II-III, but the dagger fragment 1449 must be one of the latest metal objects in the tholos. There is a rather similar dagger from Koumаса.¹⁵ *Vounous* Tomb 19 is assigned by Dikaios to the earlier of the two Early Cypriot III phases which he distinguished among his *Vounous* groups.¹⁶



FIG. 2. 1

elliptical section, and tapers with the blade. It is decorated with three groups of relief lines, one group on either side of the midrib, following its line, the third on its medial line. These groups extend from the top of the butt to the point

3. Dagger blade (PLATE 25b). Bellapais, *Vounous* Tomb 143: 32.¹⁷ J. R. Stewart's Excavation, 1937-8. Nicholson Museum, Sydney. Not seen.

L. 0.278. W. 0.037. The shoulder is badly damaged, and

⁷ The vase is discussed by, amongst others: Casson, *Ancient Cyprus* 207; Dikaios, *Archaeologia* 88 (1940) 164 f.; C. F. A. Schaeffer, *Stratigraphie comparée et chronologie de l'Asie occidentale* (1948) 337 f.; J. R. Stewart, *Handbook to the Nicholson Museum*² 139 and loc. cit. n. 6; Dikaios, *A Guide to the Cyprus Museum*² (1953) 19 and pl. viii. 1.

⁸ Grace, op. cit. 27.

⁹ The most recent exposition of the chronology of the Cypriot Bronze Age is Dikaios, op. cit. 12 ff. It is still very much *sub judice*, and new proposals are expected in the forthcoming *SCE* iv (i). For the Middle Cypriot period cf. Åström, *The Middle Cypriote Bronze Age* (1957) 257 ff.

¹⁰ The main sources for this cemetery are: Schaeffer, 'Les

découvertes dans la necropole de Vounous', *Missions en Chypre* 26 ff.; Dikaios, *Archaeologia* 88, 1 ff.; E. and J. Stewart, *Vounous 1937-8* (1950).

¹¹ Dikaios, op. cit. 46; 137 f.; pls. 42b, 60. 14. Cf. also Schaeffer, *Stratigraphie* pl. 49. 2 and p. 338; Dikaios, *GCM*² pl. 26. 3.

¹² Xanthoudides, *The Vaulted Tombs of Mesara* pl. 43. 1449 and p. 82, metal objects, no. 3.

¹³ *Archaeologia* 88, 137.

¹⁴ Dikaios, op. cit. 138.

¹⁵ Xanthoudides, op. cit. pl. 24. 1175.

¹⁶ Dikaios, op. cit. 151.

¹⁷ E. and J. Stewart, op. cit. 330 and pl. 105.

its exact form cannot be determined. Certainly two, and probably four rivets. Midrib of elliptical section with, on either side, a pair of relief lines which converge at the lower end of the midrib. The midrib is ornamented with a lightly impressed herring-bone pattern. J. R. Stewart makes no reference to its origin in the main publication, but suggests elsewhere¹⁸ that it is Minoan, an identification which he rather curiously defends not stylistically but chemically. A spectogram showed the metal to contain 11.0 per cent. tin, much the highest tin content of the *Vounous* objects¹⁹ except **2** above, which contains 10 per cent. tin.²⁰ The dagger is so close stylistically to **2** and its Minoan counterparts that there can be little doubt of its Minoan origin.²¹ The high tin content may doubtless be corroborative of such an origin, but it can scarcely be used as first-degree evidence. The dagger comes from the latest of the three phases into which Stewart divided the use of the tomb,²² and is therefore probably fairly late in Early Cypriot III.

4. Dagger blade (PLATE 25c.) Lapithos, *Vrysis tou Barba* Tomb 18b: 2.²³ J. L. Myres Excavation, 1913. Cyprus Museum.

L. 0.235. Greatest w. 0.045. Midrib thickness, 0.004. L. of surviving rivet 0.013. These dimensions correspond closely with those of **2**. Has been chemically cleaned; the edges are badly chipped. One of the rivet holes seems to have been enlarged, or remade, during the lifetime of the weapon; possibly the haft was replaced and the rivet holes in it carelessly cut, making this adjustment necessary. The midrib is elliptical in section, and is decorated with a rather haphazard arrangement of impressed lines which converge from butt to point. The arrangement of the lines varies considerably from one side of the dagger to the other. It is probable, though not certain, that this was made in a two-piece mould. Its form, which is unquestionably non-Cypriot, corresponds so closely with that of **2** that there need be little hesitation in identifying it as Minoan.²⁴ The tomb group²⁵ is probably to be dated Middle Cypriot I.²⁶

5. Dagger blade (PLATE 25d.) Lapithos, *Vrysis tou Barba* Tomb 313c-d, No. 31.²⁷ Swedish Expedition Excavation, 1927-31. Cyprus Museum.

L. 0.207. W. of butt, 0.041. Greatest thickness, 0.0035. The two rivets are 0.01 long. The lower outline of the haft can be restored from the corrosion pattern. The midrib is not very pronounced; it begins at the edge of the butt and is of flattened elliptical section. The butt is broad and has a concave top; the shoulders are slightly angular. The blade has a distinct ogival outline. There is no visible ornament, but lightly impressed or traced decoration may be covered by the corrosion. Probably made in a two-piece mould. While there does not seem to be an exact published Minoan parallel for this piece, the concavity of the butt and the ogival outline are thoroughly Minoan features, and several of the daggers from Platanos are not unlike it.²⁸ There is nothing as close as these Cretan weapons to be found in the Levant. The group in which it was found is dated Early Cypriot IIb.

6. Dagger blade (PLATE 25e.) Lapithos, *Vrysis tou Barba* Tomb 322a, No. 54.²⁹ Swedish Expedition Excavation, 1927-31. Cyprus Museum.

Existing l. 0.183. Greatest w. 0.039. Midrib thickness, 0.004. L. of surviving rivet, 0.012. The butt and tip are incomplete;³⁰ the outline of the blade is ogival, and it seems very probable that the original form of the butt resembled **5**. Whatever the precise original form of the butt may have been, the weapon is certainly not a Cypriot type; it appears to conform in essentials with **5**, with whose Minoan origin the writers are satisfied. The group from which the dagger comes is dated Early Cypriot IIb.

7. Razor (FIG. 3). Lapithos, *Vrysis tou Barba* Tomb 322a, No. 35.³¹ Swedish Expedition Excavation, 1927-31. Cyprus Museum.

L. 0.13. Greatest w. 0.0365. Thickness at mid-blade, 0.002; at edge, 0.0005. Rivets, 0.01. This instrument is quite distinct from the rest of the Cypriot razor series.³² Its straight butt, the two rivets side by side, its rounded 'tip', and the general form of the blade are alike alien. The piece is very probably from Crete, where this type of round-tipped, straight butted blade in a variety of forms is quite common.³³ The group with which it is associated is dated Early Cypriot IIc. It may be noted that it comes from the same tomb as **6**, though not from the same burial group.

¹⁸ *Hand. Nich. Mus.*² 139.

¹⁹ E. and J. Stewart, op. cit. Appendix ii. 370 f.

²⁰ Dikaos, op. cit. Appendix ii. 174.

²¹ To the examples cited above from the Mesara add two from Palaikastro—R. C. Bosanquet and R. M. Dawkins, *The Unpublished Objects from the Palaikastro Excavations 1902-6* (1923) pl. 24 D, E.

²² E. and J. Stewart, op. cit. 336.

²³ Myres, *BSA* xli, pl. 26. 1, extreme left. Taken before cleaning, and shows that all four rivets survived at the time of finding.

²⁴ The possibility of a Cypriot copy of a Minoan original can probably be dismissed, since there is no sign of a traffic in weapons of this kind large enough to have stimulated local plagiarism.

²⁵ For a selection of the grave goods cf. Myres, op. cit. pl. 29. 1, 2.

²⁶ For the date of Tomb 18a see Gjerstad, *Studies on Prehistoric Cyprus* 274. More recently Åström, *The Middle Cypriot Bronze Age* 184, puts the tomb's use as Middle Cypriot II-III. It may be tentatively assumed that Chamber b was contemporary with at least part of this long history.

²⁷ *SCE* i. 97, pl. 24. 4, extreme right.

²⁸ Xanthoudides, op. cit. pl. 55.

²⁹ *SCE* i. 148 and pl. 35. 3.

³⁰ Note that in its present condition the butt is more damaged than at the time of discovery. Cf. PLATE 25e with *SCE* i, pl. 35; the latter does not show the 'short tang pierced by two rivet holes', as described by the Swedes.

³¹ *SCE* i. 148 and pl. 35. 2.

³² For typical examples of which cf. *SCE* i, pl. 143. 11-14.

³³ Cf. (e.g.) Xanthoudides, op. cit. pl. 24 b, no. 1196 and pl. 56. 1905.

Uncertain identification

8. Dagger blade (PLATE 25e). Lapithos, *Vrysis tou Barba* Tomb 2, No. 8.³⁴ J. L. Myres Excavation, 1913. Cyprus Museum.

L. 0.172. Greatest w. 0.038. Midrib thickness 0.0335. Rivets, 0.014. Semicircular butt, with three rivets (two of which survive) in line at right angles to the long axis of the blade. The outline is a very elongated ogee. Narrow midrib of rectangular section; the weapon is remarkably slim. It is

a non-Cypriot type; the feature of a line of rivets at right angles to the long axis is without parallel in the island. Also unparalleled is the rectangular midrib. This may be a Minoan weapon, though a convincing parallel has not been traced for it. The three rivets in line are an Aegean feature, lasting into the Late Bronze Age. Also Aegean is the rounded butt and a midrib of rectangular section. A Minoan origin for this piece is quite probable.

Neither Myres, Gjerstad, nor Åström have a date to offer for the group with which this dagger was found.



FIG. 3. 7

II. LATE MINOAN OBJECTS

9. Fragments of a medium-sized pithoid jar³⁵ (PLATE 26a). Hala Sultan Tekke.³⁶ British Museum.³⁷

The fabric is a rather soft-fired reddish clay with no grit temper, tending to flake. It is covered with a glossy yellow slip, and decorated in a semi-lustrous, reddish to dark-brown paint.

The handle preserved betrays the Minoan origin of the vase;³⁸ its decoration of horizontal bars of paint contrasts with the solid paint on the handle of Mycenaean pithoid jars.³⁹ The floral ornament has some superficial resemblance to the Mycenaean flower and its many variants, but this particular flower, with its curved stem and many stamens, is more naturalistic than any Mycenaean version. The type is repeated on an unpublished cup fragment from Knossos, now in the Ashmolean.⁴⁰

Forsdyke's original identification of these pieces as

Minoan has never been seriously challenged. Furumark⁴¹ dates them to the Late Minoan IIb period.

10. Sherd from the body of a large closed vessel—perhaps a large Palace Style pithoid jar⁴² (PLATE 26b). Hala Sultan Tekke. British Museum.

The fabric is a hard, pinkish clay with no grit temper. It is covered with a smooth cream to buff slip, and decorated with a slightly lustrous dark-red to orange paint. The fragment preserves part of an elaborate design of ivy leaves with curving stems. Such leaves are recorded at Knossos,⁴³ but are also known on the Greek Mainland.

Gjerstad⁴⁴ long ago claimed this as a Late Minoan II piece, and has more recently been supported by Furumark.⁴⁵ On the other hand, Blegen and Wace considered it to be of Mainland origin.⁴⁶ The closest parallel⁴⁷ is undoubtedly

BSA xlvii. 266 ff., figs. 10 and 11.

⁴⁰ Ashmolean Accession No. 1938: 610, marked 'Area of bronze saws'.

⁴¹ 'The settlement at Ialysos and Aegean History', *Op. Arch.* vi. 205 f., and fig. 16, left.

⁴² *BMC Vases* i, pt. ii, fig. 253, C. 685. There is no record of its context in the Tekke excavations.

⁴³ Evans, *PM* iv, fig. 260. Hood and de Jong, *op. cit.* 268, fig. 11, from Tomb III: 4.

⁴⁴ *Studies on Prehistoric Cyprus* 210.

⁴⁵ *Op. Arch.* vi. 205 f. and fig. 16, right.

⁴⁶ *Klio* xxxii (2) 138, n. 2.

⁴⁷ Hood and de Jong, *loc. cit.*

³⁴ Cyprus Museum no. L. 68.

³⁵ Certainly not a bowl, as suggested by Forsdyke, *JHS* xxxi. 112.

³⁶ A very rich Late Bronze Age township with a large cemetery. The latter was partially excavated by the Turner Trust Expedition, under H. B. Walters, but no report was published. Individual objects can be found in the several volumes of the *British Museum Catalogues*.

³⁷ *BMC Vases* i, pt. i, A. 705. Forsdyke, *op. cit.* 111, fig. 1.2, 3.

³⁸ A more elaborate version of this handle form appears on a large amphoroid jar from Tylissos, cf. Hazzidakis, *Études crétoises* iii, pl. 24. 2.

³⁹ For other Minoan examples cf. Hood and de Jong,

Minoan, and the writers have little hesitation in classing it as such.

11. Pilgrim Flask (PLATE 26c). Maroni, *Zarukas* Tomb 18.⁴⁸ Turner Trust Excavation, 1897. British Museum.

Ht. 0.40. Restored from many fragments. The fabric is a very thin, rather soft, but evenly fired pinkish ware. It is covered with a glossy buff slip, and decorated with a lustrous dark-red to black paint. The junction of neck and body is set off by a pronounced neck ridge. The mouth flares. The body is an almost perfect sphere, with a small, splaying foot.⁴⁹

On either side is a conventionalized four-spoke wheel, filled with freehand concentric semicircles between the spokes, surrounded by a ring of dots and leaves. From handle to base, on each side, double lines of wave ornament.⁵⁰ In size and decoration, such a pilgrim flask is without parallel in Cyprus.⁵¹ The great size is comparable to that of the flask from the Temple Tomb at Knossos,⁵² but there are similar pieces on the Mainland.⁵³ Furumark⁵⁴ considers this to be a Minoan import of Late Minoan IIIa1 date, a view with which the writers are in agreement.

The Maroni tomb groups have never been published as such,⁵⁵ though some of their contents have appeared piecemeal, particularly in the various British Museum catalogues. The only other vase recorded from this grave is a fragmentary Mycenaean IIIB bowl-crater, ornamented with a frieze of deer⁵⁶ which must be at least a century later than the pilgrim flask. Like so many other Late Bronze Age tombs in Cyprus, Maroni 18 was evidently in use for a considerable time.⁵⁷

12. Amphoroid crater (PLATE 26d, e). Enkomi, Old Tomb 48.⁵⁸ Turner Trust Excavation, 1896.⁵⁹ British Museum.

⁴⁸ *BMC Vases* i, pt. ii, fig. 193, C. 563. *CVA* Great Britain 20, no. 5.

⁴⁹ Comparable in size is Bosanquet and Dawkins, *The Unpublished Objects from Palaikastro* 84, fig. 67.

⁵⁰ For a generally similar treatment of the greatest diameter cf. Bosanquet and Dawkins, op. cit. 46, fig. 35.

⁵¹ Cf. *CVA* Great Britain 24. 29/40 for a selection of standard pilgrim flasks of Cypriot provenance.

⁵² Evans, *PM* iv. 1006 ff., fig. 959.

⁵³ Cf. (e.g.) Blegen, *Prosymna* figs. 322 and 706, no. 541; figs. 357 and 706, no. 1101; fig. 372, no. 859; figs. 491 and 707, no. 93. For decoration cf. Furumark, *The Mycenaean Pottery* 283, Mot. 17: 20. See a Cretan example *CVA* France 13, no. 4. Similar, but more elaborately decorated, is the pilgrim flask *PM* iv, fig. 297, a. 1-2 and fig. 959.

⁵⁴ *Op. Arch.* vi. 269, n. 1.

⁵⁵ There is a brief list of the Cyprus Museum's share in J. L. Myres and M. Ohnefalsch-Richter's *Catalogue of the Cyprus Museum* (1899) 187 f.

⁵⁶ *BMC Vases* i, pt. ii, p. 77, C. 389.

⁵⁷ The pilgrim flask might be an heirloom in an otherwise homogeneous tomb, but it is improbable.

⁵⁸ Cf. Murray, Smith, and Walters, *Excavations in Cyprus* 48, fig. 73; *BMC Vases* i, pt. ii, fig. 131, C. 390. *CVA* Great Britain 20, no. 11.

⁵⁹ The main sources for the numerous excavations at Enkomi are: Murray, Smith, and Walters, op. cit. 1 ff., *SCE* i. 467 ff. C. F. A. Schaeffer, *Missions en Chypre* 67 ff.

Restored ht. 0.386. The fabric consists of a hard, evenly fired gritty buff clay, covered with a dull cream slip. The decoration is a thin, matt, rather worn, dark-red to black paint.

This crater form has no Mycenaean parallel. Note in particular the shape and set of the handles, the splay of the neck, and the globular body. The junction of neck and body is set off by a pronounced ridge.⁶⁰ The base is incorrectly restored.⁶¹ The horizontal wavy band on the neck is characteristic of Late Minoan III amphoroid craters, as also is the flame pattern⁶² with which the top surface of the rim is decorated. On the Greek Mainland such neck ornament does not survive the disappearance of the Mycenaean II Palace Style.⁶³ The main decoration is repeated on both sides of the vase. Two antithetic birds, wings outspread, face each other over a highly conventionalized flower; each bird has a conventionalized plant at its feet, and there are others in the field. Beneath each handle is a stylized floral spray. Such antithetic subjects are frequent in Late Minoan III painting.⁶⁴ The whole conception is quite alien to Mycenaean style⁶⁵ in the boldness and sureness of the drawing, with its thick outline, to say nothing of the rim and handle ornament. The entire body of the vase is taken up with the design,⁶⁶ and the painter has exercised considerable skill in fitting it to the shape of the vase.

The contents of the tomb in which our vase was found, so far as can be ascertained, suggest that it was not used before 1300 B.C.,⁶⁷ and that it had ceased being used before the end of the Mycenaean IIIB period.

13. Amphoroid crater (PLATE 27a). Enkomi, Old Tomb 83.⁶⁸ Turner Trust Excavation, 1896. British Museum.

Ht. 0.337. The fabric is a thick, hard, gritty buff ware, covered with a smooth, semi-glossy cream slip, and is

and *Enkomi-Alasia*.

⁶⁰ Such neck ridges only occur rarely on a few Myc. IIIa (early) amphoroid craters—cf. *CVA* Great Britain 19. 4; *BMC Vases* i, pt. ii, C. 352.

⁶¹ The form of the base probably resembled that of the amphoroid crater from the Temple Tomb at Knossos, *PM* iv, fig. 246.

⁶² For the 'flame ornament' in Crete—Evans's 'sacral adder mark'—cf. *PM* iv, figs. 200b and 224; Bosanquet and Dawkins, op. cit. fig. 66b.

⁶³ The normal neck ornament is a solid band of paint, e.g. *SCE* i, pl. 120, 1-2, and *CVA* Great Britain 20. 12. The neck of an early Myc. IIIa crater from El Qatna (*Syria* ix, pl. 18) has a horizontal band of guilloche ornament.

⁶⁴ Cf. *BCH* 1907, 118, figs. 1 and 2; Bossert, *Alt-Kreta* fig. 172.

⁶⁵ This was noticed by Furumark, *The Mycenaean Pottery* 593, vase 56: 2 and p. 251. Cf. also S. Immerwahr, *AJA* xlix. 539, n. 12.

⁶⁶ Mycenaean painters usually confined themselves to the upper half of their pots, though there are one or two early exceptions—e.g. the so-called Zeus crater from Enkomi, *SCE* i, pl. 120. 3 and 4, and an octopus crater from the same site, *CVA* Great Britain 21. 2.

⁶⁷ The Mycenaean IIIB character of the vases figured by Murray, &c., op. cit. fig. 73, is quite clear.

⁶⁸ Murray, &c., op. cit. 48, fig. 74, top right. *BMC Vases* i, pt. ii, fig. 128, C. 386. *CVA* Great Britain 18. 11.

decorated in a semi-lustrous brown to dark-brown paint, almost completely eroded on one side of the vase. The junction of neck and body is set off by a pronounced ridge. The base is flat; the foot has a rolled moulding.⁶⁹ The strap handles, unlike those of standard Mycenaean amphoroid craters, are, in section, flat in the middle with a bead moulding on either side. The same feature, in a more exaggerated form, appears on 12. On the neck is a horizontal wavy line.⁷⁰ The top of the rim is decorated with 'flame pattern', resembling that on 12. On the shoulder are two rows of spirals, interlocked both horizontally and vertically.⁷¹ A similar version of this ornament appears on a Late Minoan III cup fragment from Phaistos or Hagia Triada.⁷² This type of spiral is not recorded on Mycenaean vases, according to Furumark.

Old Tomb 83 was clearly in use for a considerable part of the Late Bronze Age.⁷³ Since the excavators made no attempt to distinguish the several burial periods,⁷⁴ no date independent of stylistic criteria can be offered for the piece.

14. Amphoroid crater (PLATE 27b). Enkomi, Swedish Tomb 3, No. 263.⁷⁵ Swedish Expedition Excavation, 1927-31. Cypernsamlingarna, Stockholm. Not seen.

Ht. 0.41. Restored from many fragments. Fabric, as described by the excavators, is coarse, covered with a 'gritty white' slip, and decorated in matt red paint. The shape shows a number of Late Minoan III features: the very high foot supporting a globular body; junction of neck and body marked by a prominent ridge; the splay of the neck and the degree to which the handles are offset.⁷⁶

The neck decoration closely resembles that on the Late Minoan III amphoroid crater from the Temple Tomb at Knossos,⁷⁷ with the addition of a narrow wavy band above the lower ornament.⁷⁸ The decorated part of the body is

much deeper than that found on contemporary Mycenaean vases, but is typical of Late Minoan III craters. The decoration consists of a network of conventionalized shell ornament.⁷⁹ Such designs are known in Minoan fresco painting, where they are used to ornament draperies.⁸⁰

Conditions in the tomb did not allow the excavators to discriminate in detail between the various burials and their grave goods.⁸¹ They considered that the tomb had been in use throughout the Late Cypriot IIa and IIb periods.⁸²

15. Deep-bowl crater (PLATE 27c). Enkomi, Swedish Tomb 18, Side chamber No. 51.⁸³ Swedish Expedition Excavation, 1927-31. Cypernsamlingarna, Stockholm. Not seen.

Ht. 0.278. The fabric is not described by the excavators, but photographs of the vase show it to be very gritty. The inside is completely covered with paint. The shape bears a superficial resemblance to the Mycenaean IIIb deep-bowl craters,⁸⁴ but differs in such important features as the rim form and the foot. This vase is set on quite a high pedestal, while the normal craters of this type have no more than a ring base. A vase exhibited in the Herakleion Museum, No. 1684, closely resembles this Enkomi crater, but its foot is entirely restored.⁸⁵

The decoration consists of a closely interlocked series of concentric arcs whose centres alternate between the top and bottom of the decorated zone. This type of ornament is not found on Mycenaean IIIb and Rude Style deep-bowl craters in the Levant,⁸⁶ but is known in Crete.⁸⁷

The offerings found in the side chamber of Tomb 18 were regarded by the excavators as contemporary with the burials on the floor of the chamber, which are attributed to the earlier part of the Late Cypriot IIc period.⁸⁸

16. Fragments of a large ? amphoroid crater (FIG. 4).

⁶⁹ This feature is not found on Mycenaean amphoroid craters—cf. (e.g.) Schaeffer, *Enkomi-Alasia* pl. 18.

⁷⁰ See 12 and comments, together with n. 63.

⁷¹ This design also occurs on the lower band of relief ornament on the Analiondas sherd 35 *infra*.

⁷² Cf. *Arte Cretese Micenea nel Museo Pigorini* pl. 25, second row, right; also a Late Minoan pithoid jar from the Royal Tomb at Isopata, *PM* iv, fig. 238.

⁷³ Murray, &c., loc. cit., shows the diversity of local and imported vases; cf. Gjerstad, *Studies* 283.

⁷⁴ Cf. Murray, &c., op. cit. 47, where we learn that it was a 'deep cave-like tomb with three chambers, each having door in position', but nothing about the distribution of the finds between these three chambers, or of the number of burials within each chamber.

⁷⁵ Cf. *SCE* i. 484 and pl. 121, bottom right.

⁷⁶ Cf. Furumark, *MP* 593, Vase 56: 3, where F. draws attention to the Minoan character of this shape.

⁷⁷ Evans, *PM* iv, fig. 246.

⁷⁸ Cf. 12 *supra* for a discussion of this type of neck ornament.

⁷⁹ Cf. *ADelt* 1927-8, pl. 1, a crater from Krateros in Crete; note a rather different version of this ornament on a sherd from Knossos, Evans, *PM* iv, fig. 289 (b). Cf. Alexiou, *KCh.* 1954, pl. 3, figs. 1-2.

⁸⁰ Evans, *PM* ii, figs. 456b and 457a and b.

⁸¹ *SCE* i. 476 f., 485.

⁸² Op. cit. 575. L.C. IIa and IIb are given the absolute dates of 1400-1275 B.C.—cf. E. Sjöqvist, *Problems of the Late Cypriote Bronze Age* 197.

⁸³ *SCE* i. 556 and pl. 90, second row, fourth from right.

⁸⁴ For which cf. (e.g.) *CVA* Great Britain 22. 1, 3, 4, 7, and 9.

⁸⁵ The shape does occur on the Mainland—cf. Blegen, *Prosymna* fig. 124, no. 231.

⁸⁶ Normal ornament is pictorial, spiraliform, or conventionalized fusions of both.

⁸⁷ e.g. on a fragmentary pyxis in the British Museum, A. 709 (*BMC Vases* i, pt. i, fig. 152) and on another Late Minoan III fragment from Palaikastro, op. cit. A. 726 (i). This decoration is a variant of the ornament that Furumark styles 'Linked Whorl Shell'; cf. Furumark, *MP* 311, Mot. 24, where the Minoan versions illustrated resemble the ornament on the vase under discussion, while the Mycenaean versions do not.

⁸⁸ i.e. 1275-1200 B.C. (Sjöqvist, loc. cit.). For the stratigraphic conditions in chamber and side chamber cf. *SCE* i. 547 ff., 575. The tomb is one of the most important ever to have been found at Enkomi and is further discussed in detail by Schaeffer, *Enkomi-Alasia* 318 ff. See also Sjöqvist, op. cit. 123, and Furumark, *Chronology of the Mycenaean Pottery* 68. One of the writers has considered certain aspects of its chronology; Catling, *Op. Ath.* ii. 26 ff.

Akanthou, *Moulos*.⁸⁹ Surface find.⁹⁰ Archaeological Survey of Cyprus Collections.⁹¹

Five body fragments, one missing from the illustration, almost certainly of the same vase. Though the shape is uncertain, a large amphoroid crater, or pithoid jar, seems probable. A medium hard, pinkish-buff clay with a heavy temper of red and brown grits and some mica. The surface is covered with a slightly glossy yellow slip, decorated in a rich reddish-brown, semi-lustrous paint. Evidently the greater part of the body of the vase was decorated, since the largest fragment, in which the bottom of the ornament is delimited by a zone of broad and narrow encircling

17. Fragment of a very large amphoroid crater (FIG. 5). Pyla, *Kokkinokremmos*.⁹² Surface find. Cyprus Museum.⁹³

Existing restored ht. 0.73. Thickness of wall 0.02. The fabric is a medium hard, evenly fired yellow clay, with a very thin pinkish core. It is tempered with much brown grit, and covered with a smooth yellow, matt slip. The decoration is in a very worn red to dark-brown paint. There is a pronounced ridge at the junction of neck and body; the neck is low and concave. The handles were triple.

The neck is decorated with three narrow wavy bands.⁹⁴ The main ornament on the side preserved shows two anti-



FIG. 4. 16

bands, comes from close to the foot. Not enough is preserved to reconstruct the design, but it appears to have been a very debased sea-bed (or mid-water?) scene, in which water rippling over rocks, trailing strands of weed, and whorl shells were all present. Variants of the whorl shell ornament also appear on 15 and 19. Fabric, style of ornament, and size of the decorated area of the vase alike proclaim this a Minoan and not a Mycenaean piece.

thetic birds facing inwards; between them a bucranium, on the left horn of which a snake is writhing. Below, level with the birds' feet, an argonaut moving to right. Filling ornaments consist of stylized plants and four-petalled rosettes.

Many of these elements are extremely unusual on Mycenaean vases found in Cyprus or, for that matter, anywhere else. The combination of bull and snake has a theological

⁸⁹ On this site see D. G. Hogarth, *Devia Cypria* 102 f. He noted it as an uninteresting late town site. It occupies a prominent headland on the north coast, 24 miles east of Kyrenia, midway between the villages of Ayios Amvrosios and Akanthou. Surface sherds over the greater part of the site suggest that its main occupation covered the period from the first century A.D. to the eighth, but a small and badly eroded area on the west side yields a rich series of Late Cypriot I, II, and III wares, together with Syrian and Aegean imports. This Late Bronze Age occupation was only discovered in spring 1959 when the site was explored by H. W. C.

⁹⁰ Unpublished.

⁹¹ Inv. No. CS 990. This material is housed at the Headquarters of the Archaeological Survey of Cyprus in Patriarch Gregory Street, Nicosia.

⁹² A Late Bronze Age settlement of great importance, partially excavated by Dr. Dikaio in 1952. Cf. A. H. S. Megaw, *Archaeology in Greece, 1951-2* 48 f.

⁹³ Inv. No. 1953/iii-9/1. Megaw, loc. cit. fig. 2. The writers are indebted to the Society for the Promotion of Hellenic Studies for the loan of the block from which FIG. 5 has been prepared.

⁹⁴ See 12 *supra* and n. 63.

air, in association with which birds are not inappropriate. The drawing of the birds is very close to those on the Enkomi crater **12**, and this latter vase has an almost identical type of stylized plant as filling ornament. The argonaut⁹⁵ is stylistically far removed from Mycenaean versions of this sea creature.⁹⁶ The heraldic quality of the composition is quite characteristic of Late Minoan III,⁹⁷ while the style of drawing, like that of **12** which it resembles, is Minoan and not Mycenaean. Finally, the fabric, as described above, is not to be matched by any Mycenaean vases known to the writers, but has much in common with large Minoan containers, Late Minoan III larnakes in particular.

18. Fragments of a very large amphoroid crater (PLATE



FIG. 5. **17** (sc. 1 : 10)

28a, b).⁹⁸ Pyla, *Kokkinokremmos*. Surface find. Cyprus Museum.⁹⁹

Ht. of largest preserved fragment, 0.35. Wall thickness 0.015. The fabric is a hard, evenly fired yellow-buff clay, tempered with very many variously sized red to dark-brown grits. It is covered with a smooth yellow matt slip, and is decorated in a semi-glossy paint varying from red through dark brown to black. There is no neck ridge. The handles, like those of **17**, are triple and extend from the rim to the

upper shoulder. The rim top is flat; the neck is slightly concave. The foot, whose underside is flat, has a torus-like moulding.

The rim is decorated, but the design is uncertain. On the neck, a wide wavy horizontal band. A horizontal band of paint marks the junction of neck and body. Each side of the vase is decorated with an octopus displayed, below which are three horizontal encircling bands. The curving tentacles are drawn with great care and with particular concentration on symmetry. A jar of similar size and with the same main decorative scheme comes from Palaikastro.¹⁰⁰ Such extremely symmetric displayed octopods are relatively common in Crete,¹⁰¹ and contrast with the often childish, slipshod efforts of the mainland artists.¹⁰² This stylistic

evidence is reinforced by the larnax-type fabric in which the vase is made.¹⁰³

19. Fragments of a very large amphoroid crater¹⁰⁴ (PLATE 28c). Pyla, *Kokkinokremmos*. Surface find. Cyprus Museum.¹⁰⁵

Wall thickness 0.017. A rather soft, evenly fired pinkish-buff clay, tempered with much brown grit. The surface is covered with a rather thin matt yellow slip, and is decorated in a worn matt red to dark-brown paint. The shape was

⁹⁵ Cf. *BMC Vases* i, pt. i, fig. 159, A. 729 (i), which seems to be an argonaut illustrated upside down.

⁹⁶ Cf. examples illustrated by Furumark, *MP* 307, fig. 50.

⁹⁷ Cf. Fimmen, *Die Kretisch-Mykenisch Kultur* 93, fig. 78. Cf. also *Arte Cretese* . . . *Mus. Pigorini* pl. 36, centre. S. Alexiou, *KCh* 1954, pl. 7.

⁹⁸ Unpublished.

⁹⁹ Inv. No. 1953/iii-13/5.

¹⁰⁰ Bosanquet and Dawkins, *The Unpublished Objects from Palaikastro* 83, fig. 66b; also *ibid.* fig. 92 (c. 0.90 m. high).

¹⁰¹ Cf. Matz (ed.), *Forschungen auf Kreta* Taf. 53: 4, 60: 2,

from Kydonia; Bosanquet and Dawkins, *op. cit.* figs. 88b, 89; *ADelt* 1920-1, 160, fig. 8. For a Cretan larnax decorated in closely similar style cf. *op. cit.* 159, fig. 7, from Episkopi; also Alexiou, *op. cit.* pl. 6.

¹⁰² Cf. (e.g.) *CVA Great Britain* 21. 2 and *SCE* i, pl. 120, bottom. They could do better than this, especially on kylikes, but never achieved the mastery of line which seems to have been the birthright of any Minoan draughtsman.

¹⁰³ So, too, **17** and **19**.

¹⁰⁴ Unpublished.

¹⁰⁵ Inv. No. 1953/iii-9/2.

probably the same as that of **17** and **18**. There is a pronounced ridge at the base of the neck, decorated with vertical strokes of paint, and reserved between two encircling bands.

The ornament of the decorated zone consists of a 'powdering' of 'C' pattern, confined below by three encircling bands. Beneath each handle is a triglyph-like ornament, the middle member of which consists of a thick wavy line framed on either side by a thinner line.¹⁰⁵

20. Four fragments, including part of the rim, of a very large amphoroid crater (FIG. 6).¹⁰⁷ Pyla, *Kokkinokremmos*. Surface find, 1959. Cyprus Museum.¹⁰⁸

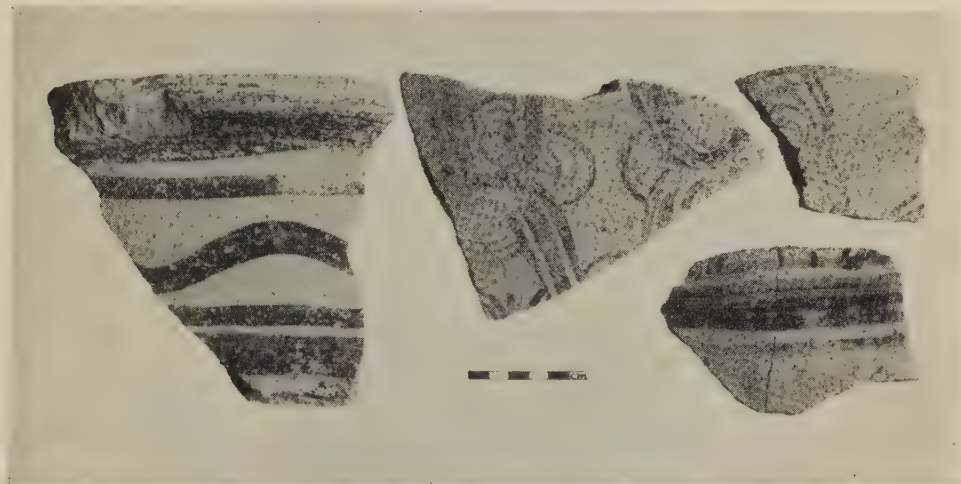


FIG. 6. **20**

Wall thickness *c.* 0.015. A medium hard yellow clay, tempered with much brown grit. The surface is covered with a semi-glossy yellow slip, and is decorated in a rich dark reddish-brown paint, very worn in places. The shape was probably as **17** and **18**. On the flat top of the rim are groups of horizontal lines. On the neck is a wavy line between two straight lines; there is a broad band at the neck and shoulder junction. Of the three body sherds, one (incorrectly aligned in the illustration) preserves part of the triglyph-like ornament noted on **19**. The two remaining fragments show that the body was originally ornamented with a complicated interlocking curvilinear pattern, elements of which can be paralleled at Palaikastro,¹⁰⁹ on Late

Minoan III vases. Furumark might style it 'Linked Whorl-Shell pattern';¹¹⁰ it corresponds to the Minoan types he cites, but not the Mycenaean.

The large amphoroid craters **17–20** have so many common features that they must be contemporary and have a common origin. A. H. S. Megaw¹¹¹ conjectured a local manufacture for **17**, which cannot be right. Not only are their stylistic and technical counterparts to be found in Crete, but only there did a tradition of decorating such immense vases and containers survive to the period, not earlier than the second half of the thirteenth century B.C., to which these four probably belong.¹¹² There is nothing Mycenaean that is remotely comparable.

21. Sherd, perhaps from a very large amphoroid crater (PLATE 27*d*). Hala Sultan Tekke.¹¹³ Turner Trust Excavation, 1898. British Museum.

The vase from which this fragment comes was probably similar to the four large Pyla amphoroid craters **17–20**. The fragment comes from the shoulder, and preserves the neck junction concealed by a prominent ridge which is decorated in the same manner as the ridge on **19**. There is also a close technical resemblance to **17–20**.

In what is preserved of the main decorated zone, a bird, wings spread, moves right—head and legs are lost. It is followed by what appears to be a fish or dolphin. Below, a fragment of incomprehensible ornament.¹¹⁴ In the field,

¹⁰⁶ Such an ornament below a handle may be compared with three Late Minoan III pithoi from Palaikastro; Bosanquet and Dawkins, *op. cit.* pl. 23 (a), (b), and (c).

¹⁰⁷ Unpublished.

¹⁰⁸ Inv. No. 1953/v-21/25 (part of).

¹⁰⁹ Bosanquet and Dawkins, *op. cit.* figs. 90, 91.

¹¹⁰ Furumark, *MP* 311, *Mot.* 24. See n. 87.

¹¹¹ *Archaeology in Greece*, 1951–2 49.

¹¹² The area of the site excavated by Dr. Dikaios showed a single period occupation, associated with Mycenaean IIIC₁ pottery, cf. Megaw, *op. cit.* 48.

¹¹³ Cf. *BMC Vases* i, pt. i, 116, fig. 151. Not assigned to a tomb, but very probably from settlement strata through which test pits for tombs were cut.

¹¹⁴ This might be stylized sea-bed—cf. Evans, *PM* iv, fig. 280 (c), and Bossert, *Alt-Kreta* no. 172.

two patches of seaweed(?), closely related to the filling ornament on 12. Such bird and fish designs are common in Crete, but much less so in Mainland tradition.¹¹⁵ The filling ornament is of a style unknown on Mycenaean vases.

The paint is extremely worn, but the form of the ornament survives as a shadow. What remains clearly formed part of an elaborate curvilinear design of a type which, as Forsdyke pointed out, occurs commonly in Crete.¹¹⁸ The



FIG. 7. 23

22. Two sherds, possibly from an amphoroid crater¹¹⁶ (PLATE 28d). Enkomi. Turner Trust Excavation, 1896. British Museum.

The fabric is described by Forsdyke as 'a very thick ware, composed of coarse, stony clay with a smooth slip and painted decoration in the usual black varnish'.¹¹⁷

¹¹⁵ Cf. Evans, *op. cit.* fig. 280 (c) and Fimmen, *Die Kretisch-Mykenisch Kultur* fig. 55, a larnax from Anogeia.

¹¹⁶ Forsdyke, *JHS* xxxi. 112 and fig. 3.

¹¹⁷ Thus comparable to the fabric of the Pyla craters 17–20.

¹¹⁸ Cf. references quoted by Forsdyke, *loc. cit.*, nn. 4 and 5, to which may be added the Mouliana B stirrup vases—

writers accept Forsdyke's identification of these sherds as Minoan.

23. Large stirrup jar (FIG. 7). Episkopi, Old Tomb 50.¹¹⁹ Turner Trust Excavation, 1895. British Museum.

Ht. 0.45. Restored from fragments; incomplete. The Xanthoudides, *AE* 1904, pl. 1—and a larnax from Milatos *ADelt* parart. vi (1920–1) 154, fig. 1. Cf. also *Arte Cretese . . . Mus. Pigorini* pl. 37, especially bottom, two pieces on left.

¹¹⁹ Cf. Murray, &c., *op. cit.* 74, fig. 128. Walters, *Ancient Pottery* i. 269. Forsdyke, *op. cit.* 113, fig. 4. *BMC Vases* i, pt. ii, fig. 176c. C 501.

fabric is a hard, thick, gritty buff clay, covered with a matt buff slip. It is decorated in a dark-brown to black semi-glossy paint. The profile is piriform, the base is flat. The line of handles and false neck is concave, characteristic of this type of stirrup jar.

On either side of the body is an octopus displayed, with six tentacles; three horizontal encircling bands divide this from a shoulder decoration of involuted conventionalized tentacles.¹²⁰ Forsdyke considered the vase to be of Minoan fabric,¹²¹ a view with which the writers agree.

The other recorded contents of Tomb 50¹²² suggest that it was used during the late fourteenth and/or early thirteenth centuries B.C.

24. Large stirrup jar (PLATE 29 *a, b*). No provenance.¹²³ Originally in the C. G. Gunther Collection. Cyprus Museum.¹²⁴

Ht. 0.44. The fabric is a hard, evenly fired, pinkish gritty clay. It is covered with a creamy-buff, smooth matt slip, rather worn in places. It is decorated in a semi-glossy red to dark-brown paint. The body is ovoid, the lower part misshapen. It is carried on a disproportionately small foot, with flat base. The line of the handles and false neck is concave. There is an identical incised sign of the 'Cypro-Minoan' script on each handle.¹²⁵

On either side of the body is an octopus displayed. There are two main tentacles on either side of the body; the drawing of the tentacles is similar to that on the Pyla amphoroid crater **18**.¹²⁶

25. Fragmentary large stirrup jar (PLATE 29*c*). Episkopi, *Bamboula*. Pennsylvania Museum Excavation.¹²⁷ From the deposit of the so-called cellar of Area D.¹²⁸ Cyprus Museum.

Existing ht. 0.45. The fabric is a hard, evenly fired, rather gritty, coarse brownish-buff clay. It is covered with a thin, matt yellow slip, and is decorated in a matt dark-brown paint. The handles, false neck, spout, and part of the body are missing. The body is globular with an elongated pedestal foot and flat base.

The deep shoulder zone is ornamented with stylized palm trees.¹²⁹ This seems to be the only recorded palm tree on a stirrup jar; although the motif is often found on the

Greek Mainland, particularly in Mycenaean II, it changes out of recognition by Mycenaean III. The criteria of fabric and form are strongly in favour of a Minoan origin; the decoration is otherwise unknown on Mycenaean vases of the same date, but, equally, no Minoan parallel can be offered. Such bold drawing, however, suits a Minoan painter of this date better than the more sober and cramped brushwork of his Mycenaean contemporary.

26. Fragmentary large stirrup jar (not illustrated). Provenance and circumstances of discovery as 25.¹³⁰ Pennsylvania University Museum. Not seen.

Ht. (restored) 0.33. The writers are indebted to Dr. J. L. Benson for a description of the fabric. 'Light grey, shading to orange buff at the surface, which is very slightly lustrous, but has no slip. Some fine, mostly light sand, but the temper is fairly uniform; large crushed grits. Paint slightly lustrous orange-brown to dark grey-brown.'

On one handle is an incised 'Cypro-Minoan' sign.¹³¹ On the belly of the vase is an ornament of wavy lines, possibly an impressionistic octopus. Daniel mentioned¹³² the occurrence of several other pieces of this kind of stirrup jar at Episkopi. He refers to Forsdyke's suggestion of a Minoan origin (for **23**), and counters with a comparison with vases from Troy VI, suggesting a common origin for the Cypriot and Trojan pieces. The resemblance to the Trojan examples does not, in fact, seem to be as close as Daniel implied.

27. Fragmentary large stirrup jar (PLATE 29*d*). Dhenia, *Kafkalla*.¹³³ Recovered from a looted tomb.¹³⁴ Cyprus Museum.

Ht. *c.* 0.20. The fabric is a hard, pinkish-buff clay with a heavy temper of mica and brown grits. It is covered with a thin, matt pinkish-yellow slip, and decorated in a matt orange wash paint.

The top of the spout, part of the shoulders, and nearly all the body are lost. On one handle is an incised sign of the 'Cypro-Minoan' script. Enough of the body is preserved to show that it was decorated with a boldly drawn displayed octopus. On the shoulder is a simplified version of the involuted ornament encountered on **23** (from Episkopi), separated from the main design by a single encircling band.¹³⁵

¹²⁰ Resembling the Pyla stirrup jar **28**, *infra*. A simplified version of the same ornament appears on the Dhenia fragment **27**, *infra*.

¹²¹ He compared it to Boyd-Hawes, *Gournia* pl. 10. 12 and BSA ix. 318. Cf. also *Forschungen auf Kreta* Taf. 49. 3, from Kydonia, and Evans, *PM* iv. 735, fig. 720 (*a*) and (*b*), from Knossos.

¹²² Murray, &c., op. cit. 79.

¹²³ Unpublished, but mentioned by Dikaïos, *A Guide to the Cyprus Museum*² 32, no. 139 *c*, where described as 'Mycenaean . . . of inferior local workmanship'. Cf. also Markides, *Annual Report of the Curator of Antiquities* 1916 22.

¹²⁴ Inv. No. A. 1504.

¹²⁵ Noticed by O. Masson, *Minos* v. 14; one of the signs is figured op. cit. fig. 5. Masson equates it with Daniel's sign I: 7. See *AJA* xlv. 249 ff.

¹²⁶ Cf. *Arte Cretese* . . . *Mus. Pigorini* pl. 34, centre.

¹²⁷ Excavator's no. P. 1424. For notices of the American excavations of this important Late Bronze Age settlement cf. J. F. Daniel, *Philad. Univ. Museum Bulletin* 8 (1) 2 ff. and *AJA* xlii. 261 ff.

¹²⁸ For the date of this deposit cf. *AJA* xlv. 272.

¹²⁹ Cf. Furumark, *MP* 277, fig. 38, but not exactly matched on this Mot. 14; the sinuous curves of the fronds correspond more with op. cit. Mot. 15, fig. 39, though there is little else in common with this variant.

¹³⁰ Daniel, *AJA* xlv. 267, fig. 11.

¹³¹ Ibid.

¹³² Ibid.

¹³³ A vast Bronze Age cemetery some 12 miles west of Nicosia—cf. Gjerstad, *Studies* 7 f.; A. H. S. Megaw in *Archaeology in Greece, 1951–2* 47 and *Annual Report of the Director of Antiquities* (1953) 16.

¹³⁴ Unpublished. Inv. No. 1938/x–10/2.

¹³⁵ Cf. *ADelt* 1920–1, parat. vi, 155, fig. 2, middle.

28. Fragmentary large stirrup jar with strainer spout (FIG. 8).¹³⁶ Pyla, *Kokkinokremmos*. Surface find. Cyprus Museum.¹³⁷

The fabric is a medium hard, yellowish-buff clay with a heavy grit temper. The surface is covered with a thin yellowish matt slip, and is decorated in a slightly glossy dark-brown to black paint. There remain fragments of the

Preserved ht. 0.09. Diam. of false neck, 0.065. A medium hard yellow-buff clay, with a heavy temper of mixed grits (red, brown, and black). The thicker sections show a grey core. The unslipped surface is decorated in a faded reddish-brown to dark-brown wash paint.

It consists of the false neck, spout, one handle, and part of the shoulder, restored from four fragments. The top of



FIG. 8. 28

shoulder, strainer spout,¹³⁸ false neck, and handles, together with a number of unattached body pieces.

From the unattached body sherds, the main ornament can be seen to have been a displayed octopus. The shoulder ornament of involuted, conventionalized tentacles(?) or spirals(?) is closely matched by the Episkopi stirrup jar **23**. The vase corresponds closely in style and technique to the other large stirrup jars described above, with whose Minoan origin the writers are satisfied.

29. Fragment of a large stirrup jar (not illustrated). Akanthou, *Moulos*.¹³⁹ Surface find. Archaeological Survey of Cyprus Collection.¹⁴⁰

the spout, the top and root of the false neck are outlined in paint: a vertical band of paint in the middle of the handle. Part of a wavy line survives on the shoulder.

30. Fragment of a large stirrup jar (not illustrated). Akanthou, *Moulos*. Surface find. Archaeological Survey of Cyprus Collections.

Greatest w. 0.163. Preserved ht. 0.10. Diam. of false neck, 0.055. A rather soft buff clay, with heavy grit temper, evenly fired where wall is thin, but a grey interior surface where thick. The surface is eroded and no trace of slip or paint survives.

It consists of the false neck, handles, and part of the

¹³⁶ Unpublished.

¹³⁷ Inv. No. 1953/v-21/25.

¹³⁸ This is the only example in the present series of a stirrup jar with a strainer spout.

¹³⁹ On this site see n. 89 above.

¹⁴⁰ This and **30-31** are unpublished. They are registered under Inv. No. CS 990.

shoulder, made up from three joining fragments. Across the upper part of one handle are three parallel lines incised after firing. They are presumably a quantity mark.

31. Fragment of a large stirrup jar (not illustrated). Akanthou, *Moulos*. Surface find. Archaeological Survey of Cyprus Collections.

The two fragments each measure 0.10. A rather soft buff-brown clay with heavy grit temper; it has fired pinkish-red on the surface. The surface is eroded, and no traces of slip or paint remain.

Parts of the two handles, attached to each of which is a small piece of the shoulder, alone survive. Each preserves the greater part of a 'Cypro-Minoan' sign incised after firing: (a) sign 23 in the Enkomi table published by Ventris and Chadwick;¹⁴¹ (b) close to Stubbings's No. 4 from

Syria,¹⁴² but the vertical stroke penetrates within the triangle.

32. Fragment of a large stirrup jar (not illustrated). Kouklia, *Mantissa*.¹⁴³ Department of Antiquities Excavation, 1954. Kouklia District Museum.

Part of the base. Seen briefly by H. W. C. (May 1959), who merely noted that fabric, finish, and decoration exactly correspond with that of the other Late Minoan III stirrup jars catalogued above. Found in a disturbed context.

33. Fragment of a large stirrup jar (not illustrated). Kouklia, *Mantissa*. Department of Antiquities Excavation, 1954. Kouklia District Museum.

Body sherd 0.10 × 0.08. Seen under same conditions as **32**. Late Minoan III fabric, decorated with a displayed octopus. From a disturbed context.

UNCERTAIN IDENTIFICATION

34. Fragmentary large stirrup jar (not illustrated). Korovia, *Nitovikla*.¹⁴⁴ Swedish Expedition Excavation, 1927-31. Cypernsamlingarna, Stockholm. Not seen.

The excavators' description ('fragments of a large stirrup vase of painted coarse ware'), together with the gritty

appearance of the fabric in the published photograph,¹⁴⁵ seem to accord with the general fabric type noted for better preserved specimens in the catalogue above (**23-33**), and the piece is therefore tentatively assigned to the same origin.

GENERAL NOTE ON THE LARGE STIRRUP JARS

These large storage jars are represented by ten, perhaps eleven, whole or fragmentary examples, and thus form the largest single class of Minoan vases found in Cyprus. Their particular type of coarse, gritty clay, together with the character of their surface finish, sets them apart from anything else in the island, while their normal decoration of octopods—is it, perhaps, some kind of trade-mark?—distinguishes them from the coarse stirrup jars found on the Greek Mainland and in Rhodes. Attention was drawn above to the specifically Minoan quality of the drawing of the octopods, and to Minoan parallels for the identical combination of shape and decoration. Mainland coarse stirrup jars of comparable date tend to lack ornament other than encircling bands, and, very occasionally, painted inscriptions.¹⁴⁶ Body colour commonly varies from greens to grey-blues, and the decoration is often in a light-on-dark technique.¹⁴⁷ No suggestion that these stirrup jars were made in Cyprus under Aegean influence can be convincing in the light (1) of Aegean-type vases which evidently were so manufactured, and (2) of the type of coarse or plain vases produced in vast numbers in the local potteries. Our stirrup jars contrast very sharply with both these ceramic types.

The presence in Cyprus, in fair numbers,¹⁴⁸ of this particular shape, so well suited for the transport of liquids, permits the conjecture that they figured as an integral part in a more than

¹⁴¹ *Documents in Mycenaean Greek* 62, fig. 11.

¹⁴² *Mycenaean Pottery from the Levant*, last sign on p. 48.

¹⁴³ A site on the north-east outskirts of the modern village, where building of a new Turkish elementary school in 1954 revealed a Late Bronze Age cemetery much damaged by the subsequent construction of houses in Cypro-Archaic times. The site was excavated for the Department of Antiquities by J. S. Last, Honorary Curator of Kurion. Brief preliminary accounts of the excavation are given by A. H. S. Megaw, *Annual Report of the Director of Antiquities* (1954) 15 and *Archaeology in Greece*, 1954 54. Late Bronze Age Kouklia was probably second only in importance to Enkomi, in the light of discoveries recently made by the St. Andrews University and Liverpool Museum Expedition.

Cf. (e.g.) *ILN* 2/5/53, 710 f.

¹⁴⁴ Found unstratified by the Swedes in the gateway of the fortress excavated by them here. The piece is considerably later than the main occupation of the site, which excavation showed to have covered the Middle Cypriot III-Late Cypriot I periods (cf. *SCE* i. 405 and pl. 70. 5).

¹⁴⁵ *SCE* i, pl. 70. 5.

¹⁴⁶ Of which the best known is the series from Thebes.

¹⁴⁷ Cf. (e.g.) the group found in the House of the Oil Merchant at Mycenae, *BSA* xlviii, pls. 7-8; others from Rhodes, *CVA* Great Britain 288. 7-9.

¹⁴⁸ Apart from those catalogued here, the writers have noted a number in recent (and, as yet, unpublished) excavations in Cyprus.

ephemeral trade¹⁴⁹ between west and east.¹⁵⁰ They could scarcely have been imported for their own sake, though this must have been true of much of the fine Mycenaean IIIa and IIIb pottery found in Cyprus. The constant association of shape, size, and ornament raises at least a suspicion that the pots were made specifically for this purpose, perhaps under some fairly senior controlling authority whose fiat was symbolized by the octopus. Canaanite jars and Rhodian amphorae might be compared.

It may, of course, have been Mycenaean ships, not Minoan, which handled this traffic; the evidence is equivocal.

35. Sherd from a large pithos, decorated in relief (PLATE 30 a, b). Analiondas, probably from the locality *Paliakklesia*.¹⁵¹

Purchased from the villager by whom it was found on the surface. Cyprus Museum.¹⁵²

The fragment measures 0.26×0.20 , and is 0.025 thick. It is a wheel-made yellow-buff ware, tempered with very many small dark-brown grits. It is fired evenly, but not very hard. The fragment comes from the shoulder of the pithos, and preserves part of the neck ridge.

Below the neck ridge is a horizontal band of relief ornament, evidently produced by rolling a cylinder over a blocked-out band while the vase was still wet. Ht. of composition 0.03 , L. (i.e. circumference of cylinder) 0.095 . Two complete repetitions and part of a third are preserved. The band, as preserved, is unevenly rolled. Two attendants run to right, following a chariot; the chariot is drawn by a single horse; in the cab, a bowman with one-piece bow at full stretch—he wears a plumed conical helmet, possibly of boar's-tusk type. The chariot wheels are four-spoked, with pronounced hub. The horse's mane is tufted; the reins are indicated. Attached to the near side of the cab is a quiver. The attendants wear cod-pieces; their heads seem to be bare. The posture of their arms and legs as they run is very reminiscent of the Knossos 'Captain of the Blacks' fresco. In front of the chariot gallop, in two registers, a bull (upper) with forward curving horns, and a cow (lower), behind and to the left of which is her calf. A high degree of naturalism was achieved in the rendering of the fleeing animals. The bottom edge of the band was smoothed out after rolling, but the top was left rough. Below, partly preserved, is a second band of relief ornament; this is wavy, but seems to have been produced in the same manner as the upper band. The seal was 0.04 high, and apparently had a circumference of 0.07 . It consists of two horizontal bands of spirals, linked both horizontally and vertically. There are stylized shells filling the interstices. The ornament was rather irregularly applied, and has gone off the edge in some places.

Photographs and casts of this sherd were submitted to the Rev. V. E. G. Kenna, who has been kind enough to contribute the following note:

'TECHNIQUE

'The impressions seem to be those of cylinders, perhaps engraved for this work, and rolled over the wet clay; for designs and flaws are repeated. Cylinder seals were still much in vogue in Cyprus at the end of the second millennium B.C., before the conoid or pendant shape of seal, partly derived from Syria, became fashionable about 900–800 B.C.

'The cylinders responsible for the two registers may well have been made of wood; for although no marks of graining are visible, the cutting of the cylinder used in the lower register

¹⁴⁹ In fact the jars are not by themselves any evidence for the presence in Cyprus of Minoan emigrés.

¹⁵⁰ Note the interesting suggestion (Ventris and Chadwick, *Documents in Mycenaean Greek* 59 f.) that such stirrup jars were made to contain standard liquid measures. The suitability of such a practice for foreign trade is obvious.

¹⁵¹ A Late Bronze Age settlement in the broken foothill country some 14 miles south-south-west of Nicosia. The only other object in the Cyprus Museum from the site is a large plain pithos of local manufacture.

¹⁵² Unpublished. Inv. No. 1953/ix-3/6.

seems to indicate a greater ease in the small bends of the curve of the spirals than in those parts of the design running parallel to the length of the cylinder. It is assumed that the grain of the wood ran the length of the cylinder. In the upper register, likewise, deeper cutting appears to have been made against the long axis than with it.

For impressing wet clay, wood is easier to use than steatite, marble, bone or ivory. These, when wet, tend to slip over the clay. Probably a resinous wood was used, which would resist the softening action of water and, not greasy to the touch like olive wood, could be more controlled in use.

'TECHNIQUE INTO STYLE

Both registers seem to have been inspired by metal work. The spiral-form decoration of the lower register should be compared with the repoussé work on the silver bowl from Byblos of Aegean origin and with the decoration on a gold cup from a Late Minoan warrior grave near Knossos;¹⁵³ with added palmettes or stylized flowers—a stylistic habit associated with Late Minoan II vase painting.¹⁵⁴

In the upper register there seems to be a collation of styles from Late Minoan I figures of running men and galloping animals and Late Minoan Ib chariots and animals (only one animal seems shown), with a chariot motif from Egyptian XVIII or XIX Dynasty sources.

It is true, however, that the Egyptian chariot motifs stretch out their horses in a stylistic gallop. Here, an earlier Minoan convention is retained in which the horses do not as a rule gallop. The gold ring from the IV Shaft Grave at Mycenae provides an exception.¹⁵⁵ Usually they trot or walk as in Vapheio I¹⁵⁶ or B.M. 40.¹⁵⁷

The usual Minoan tradition is also seen in the motif of the striped agate ring from Lyttos¹⁵⁸ and in the sealing from Hagia Triada.¹⁵⁹ The tendency of the Mainland is to render the horses even more static—cf. the fresco from Tiryns.¹⁶⁰ This is repeated in Bronze Age Cypriot work,¹⁶¹ but the combination of these groups of running men, galloping animals and a standing or walking chariot whose driver, crowned in Egyptian manner, shoots an arrow, reveals a stylistic discrepancy un-Minoan in character.

All extant Minoan cylinders show an extraordinary sensitiveness in uniformity of rhythm in the case of moving figures, of placing in the case of stationary figures.¹⁶²

Therefore this sherd presents special stylistic problems. Indeed, the introduction of an XVIII or XIX Dynasty motif into Minoan motifs with a slavish adherence to earlier Minoan style, but without Minoan sensitiveness, suggests an un-Cretan origin. Further, a combination of two registers dissimilar in character on one pot is also un-Minoan.

I suggest therefore a craftsman well acquainted with Minoan and Egyptian XIX Dynasty motifs was responsible for the decoration, but a craftsman working outside the main Cretan tradition—which, indeed, by the end of the second millennium, was in course of dissipation.'

The implications of the Analiondas sherd cannot be fully appreciated without reference to the recently published sherds¹⁶³ from the *Bamboula* site at Episkopi. Dr. J. L. Benson discusses

¹⁵³ Bowl: Virolleaud, *Syria* iii (1922) 273 ff.; *PM* ii. 655, fig. 420. Cup: Hood, *BSA* li (1956) 87 ff.

¹⁵⁴ Pendlebury, *Archaeology of Crete* pl. 35. 3b.

¹⁵⁵ *PM* iv. 579, fig. 564. ¹⁵⁶ *Op. cit.* 820, fig. 799.

¹⁵⁷ *Op. cit.* 816, fig. 795. ¹⁵⁸ *Op. cit.* 823, fig. 803.

¹⁵⁹ Levi, *Le Cretule de Hagia Triada* no. 117.

¹⁶⁰ Rodenwald, *Tiryns* ii. 98, fig. 40. *PM* iv. 824, fig. 804.

¹⁶¹ Fragments of vases from Enkomi, *PM* iv. 818 f., figs. 797a, b, c.

¹⁶² Cf. (a) Hood and de Jong, *BSA* xlvii. 275, III: 23. (b) Blegen, *Prosymna* 145, 595, no. 20 from T. II. (c) *AM* 1938, 1090; *PM* iv. 497, fig. 436. (d) *AM* 1938, 1071 and two cylinders in the Ashmolean; Frankfort, *Cylinder Seals* pl. 42, L; pl. 44, B. (e) *HM* 33 and *HM* 565. (f) *AM* 1938, 1006, 1007. (g) Porada, *Corpus of Ancient N.E. Seals*, no. 1109 (from the Pierpont Morgan collection).

¹⁶³ J. L. Benson in *The Aegean and the Near East: Studies presented to Hetty Goldman* 59 ff.

in detail a number of fragments of approximately the same class as the Analiondas piece. Of these, one of the impressions is of Babylonian origin, another pure Cypriot, and need not concern us. Of the remaining four impressions, he considers one to be Minoan, while he classes the other three as 'Minoan-Mycenaean'. Where the date of the sherds is known stratigraphically, Dr. Benson shows the seals used on them to be up to four centuries earlier than the pots they were used to decorate. With considerable personal experience of Cypriot pot fabrics, he identifies the clays in each case as Cypriot. In his view, the seals employed were 'foreign artefacts', used by Cypriots in the manufacture of standard Cypriot pots. The Aegean parentage of the Analiondas impression is even more apparent than that of the *Bamboula* impressions.

If the Analiondas pithos was made in Cyprus, it does not conform to the standard fabrics of the Late Bronze Age pithoi, great quantities of which the writers have handled from surface and

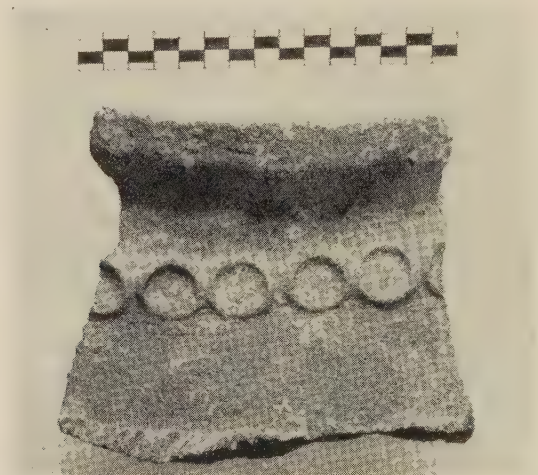


FIG. 9. 36

excavated finds made all over the island. It is, however, close to the fabric of the large amphoroid craters from Pyla (17-20), which it resembles both in its yellow colour and the quality of the grit temper. It would, in fact, have occasioned comment even without its relief ornament.

Dr. Benson has already discussed the significance of the *Bamboula* impressions. The Analiondas fragment is a slightly different case, since we are dealing not only with an exotic sealing but an exotic pot-fabric as well. Unless the pot was a straightforward import, it could only have been made by a foreign potter who, not unnaturally, chose to decorate it in a fashion to which he was temperamentally accustomed. Mr. Kenna's analysis of the style of the impressions makes it probable, indeed, that the work was done outside Crete. It may be conjectured that both seals and pot were the work of Aegean craftsmen or their immediate descendants domiciled in Cyprus.

36. Fragments of a coarse pithos (FIG. 9). Pyla, *Kokkinokremmos*.¹⁶⁴ Surface find. Cyprus Museum.¹⁶⁵

The fabric is a hard, evenly fired red clay, with a heavy grit temper. The surface finish is plain.

Under the squarish rim is a horizontal band of applied

'piecrust' ornament; below (attested by unattached fragments) a horizontal wavy line (or lines) of rope pattern. The standard pithoi of the late Bronze Age in Cyprus are very different both in technique, form, and ornament.¹⁶⁶ This type of pithos, particular in rim form and ornament, is well

¹⁶⁴ Unpublished.

¹⁶⁵ Inv. No. 1953/v-21/25.

¹⁶⁶ Few have so far been published, but see du Plat Taylor,

Ant. Journ. xxxii. 133 ff., especially figs. 6, 8, 11, and 12, and Catling in *Myrtou-Pigadhes* 58 f., and fig. 24. A Cypriot origin for the piece can be ruled out.

known in Crete, though an exact parallel may not exist.¹⁶⁷ Formally similar pithoi have been found at Phylakopi.¹⁶⁸ Pithoi on the Greek Mainland, very few of which have so

far been published, are quite unlike this piece.¹⁶⁹ There is nothing to suggest that the type is Levantine.¹⁷⁰

REJECTS

A small number of vases or fragments have had a Minoan origin suggested, which will not stand scrutiny, as has already in some cases been demonstrated.

(a). A painted sherd from Episkopi, now in the British Museum No. A. 568,¹⁷¹ alleged by Forsdyke to be Kamares, though he was puzzled by its late context.¹⁷² *BMC Vases* i, Part i, perpetuated the Minoan identification, and so did Gjerstad¹⁷³ and Casson.¹⁷⁴ Even Wace and Blegen were misled by it.¹⁷⁵ It is in fact a painted Base Ring I ware sherd, admittedly of unusual type, and very probably belongs to the remarkable crater of this fabric found at Episkopi by the University of Pennsylvania Expedition,¹⁷⁶ since it repeats exactly the latter's clay and ornament.

(b). A sponge ornamented globular alabastron from Maroni, now in the British Museum, No. A. 635.¹⁷⁷ Forsdyke suggested a Minoan origin, Wace and Blegen¹⁷⁸ and later Furumark rejected it.¹⁷⁹ There are numerous very close parallels on the Mainland.¹⁸⁰

(c). A small cup, with interior floral ornament, from Enkomi, now in the British Museum, No. C. 678.¹⁸¹ Gjerstad¹⁸² identified it as Minoan, but this was accepted neither by Wace and Blegen, nor by Furumark.¹⁸³

SUMMARY

The original draft of this section, written before the discovery in 1959 of fragments of four Late Minoan III vases at the *Moulos* site near Akanthou (16, 29, 30, and 31), had sought to contrast the distribution of Middle Minoan objects, all of which came from the north coast, with that of Late Minoan, which, at that time, with few exceptions came from the wealthy Late Bronze Age seaports of the south. Attention was drawn to the way in which, after an initial concentration during the Early Bronze Age in the rich, narrow coastal plain on the north side of the Kyrenia mountains,¹⁸⁴ centres of wealth and, doubtless, of power had shifted east and south. In the Middle Bronze Age, when this move began, it had been associated with a growing Levantine trade which, in the Late Bronze Age after 1400 B.C., began increasingly to be a trade with the west, carried on from such sites as Enkomi, Hala Sultan Tekke, and Maroni. It was pointed out that it had been at just those sites that the great majority of Late Minoan finds had been recorded. The *Moulos* finds show, however, that at least one north coast site has a relatively substantial amount of Late Minoan material, and one must now be prepared for similar finds elsewhere on the north coast, should other important Late Bronze Age sites be identified in that area.¹⁸⁵ *Moulos* suggests Minoan ships trading along the north coast as well as the south, but it should be remembered that the site is no great distance from the Lefkoniko Pass, an important

¹⁶⁷ Cf. *PM* iv. 633 ff., figs. 622–34, especially fig. 633, no. 6, with identical 'piecrust' below the rim. Fig. 626 has comparable rope ornament. See also *Arte Cretese* . . . *Mus. Pigorini* pl. 25, from Hagia Triada or Phaistos.

¹⁶⁸ *Excavations at Phylakopi in Melos* pl. 34, no. 13.

¹⁶⁹ Cf. (e.g.) *BSA* xxv, pl. 62. 2; xlviii, pl. 10a.

¹⁷⁰ Cf. pithoi from Ras Shamra and Minet el Beida, Schaeffer, *Ugaritica* ii, fig. 86.

¹⁷¹ *BMC Vases* i, pt. i, fig. 116.

¹⁷² Forsdyke, *JHS* xxxi. 111.

¹⁷³ *Studies* 308.

¹⁷⁴ *Ancient Cyprus* 39.

¹⁷⁵ *Klio* xxxii. 138, n. 1.

¹⁷⁶ Cf. *Philad. Univ. Museum Bulletin* 8 (1) pl. 4f.

¹⁷⁷ *BMC Vases* i, pt. i, 103, and pl. 8. Forsdyke, *op. cit.* fig. 2. 1.

¹⁷⁸ *Op. cit.* 138, n. 2.

¹⁷⁹ Furumark, *Op. Arch.* vi. 205.

¹⁸⁰ e.g. *Prosymna* fig. 669; Wace, *Chamber Tombs at Mycenae* pl. 1, no. 32.

¹⁸¹ *BMC Vases* i, pt. ii. 129 and fig. 247.

¹⁸² *Studies* 210.

¹⁸³ *Locc. cit.*

¹⁸⁴ Vividly attested by the *Vounous* (Bellapais) and *Vrysis tou Barba* (Lapithos) cemeteries.

¹⁸⁵ Recent work by the Archaeological Survey of Cyprus has shown that Lapithos, so rich and important in the Early and Middle Bronze Age, and again at the start of the Iron Age, was far more important in the Late Bronze Age (when it was almost certainly a metal working centre) than had

line of communication between the eastern half of the coastal plain and the Bay of Salamis with the mouth of Pediaeos on which stood Enkomi. The *Moulos* finds *could* have come from Enkomi through the pass. Nevertheless, however they reached that northern settlement, it is still true that the distribution of Late Minoan objects in Cyprus corresponds closely with the location of sites of prime importance, the great majority of which follow the coast round from the mouth of the Pediaeos in the Bay of Salamis along the island's southern seaboard from Cape Greco to Kouklia.

If a numerical comparison is made between Middle Minoan and Late Minoan pieces in Cyprus, it is clear that the island's overseas trade had expanded greatly between the eighteenth and thirteenth centuries B.C. Only a single vase is known in the earlier period, with a modest number of bronzes, by contrast with the substantial number of Late Minoan vase finds.

The presence of Middle Minoan material in Cyprus does not necessarily imply direct contact between the two islands at that period, in view of the fact that Middle Minoan trade goods were also reaching sites on the Levantine littoral.¹⁸⁶ It would have been quite possible for them to have been re-exported to Cyprus;¹⁸⁷ on the other hand, Cyprus may have been occasionally included in the itinerary of Minoan trading voyages in the eastern Mediterranean.

In the Late Minoan period, after the fall of Knossos, exported material increases in volume, though the years 1600–1400 B.C. had seen little eastward traffic, to judge from the finds. This is perhaps surprising in view of the presence of a Minoan colony as near as Ayia Trianda in Rhodes.¹⁸⁸ As far as the writers have been able to determine, Cyprus was the principal recipient of what Minoan eastward trade there was in the years following the destruction of Knossos.

In what has gone before there has, intentionally, been no reference to the problems of the so-called 'Cypro-Minoan' script, which appears in Late Bronze Age Cyprus. There already exists an important literature on the subject,¹⁸⁹ and the present paper is not the place for a renewed discussion. It is relevant, however, to draw attention to the apparent connexions between the Cypriot script and the linear syllabaries of Crete and the Greek Mainland. Sir Arthur Evans long ago expressed the belief that the Cypriot script derives from Linear A, a view that was later held by J. F. Daniel. The implications of this relationship may have been obscured by the belief that familiarity with this type of writing had come to the island as a result of the connexions between Cyprus and Mainland Greece from Mycenaean IIIa times onwards. The date of the first tablets to be found at Enkomi¹⁹⁰ did nothing to alter this. But the last tablet found by Dr. Dikaios at Enkomi¹⁹¹ in 1955 has raised serious difficulties in such an interpretation. Its context dates it, in the excavator's words, 'sometime at the end of the sixteenth century or the beginning of the fifteenth century B.C.'. Moreover, the late Michael Ventris considered¹⁹² its affinities to be much more with Linear A than Linear B. Ventris also drew attention¹⁹³ to the dissimilarities between Linear B and the later Enkomi tablets. He was sceptical of the theory that the script in this form had been introduced by Achaeans settlers,¹⁹⁴ in view of the otherwise very homogeneous character of Linear B elsewhere.

previously been believed. Unfortunately, the greater part of the ancient settlement clearly lies beneath the houses and gardens of the modern village.

¹⁸⁶ A fact that led Schaeffer to believe that there had been a Middle Minoan mercantile settlement at Ras Shamra; cf. Schaeffer, *The Cuneiform Texts of Ras Shamra-Ugarit* 12.

¹⁸⁷ Nevertheless, there is a notable absence of contemporary Levantine material at *Vounous* and *Lapithos*.

¹⁸⁸ Cf. G. Monaco, *Clara Rhodos* x. 41 ff.; Furumark, *Op. Arch.* vi. 150 ff.

¹⁸⁹ e.g. Evans, *PM* iv. 758 ff.; M. Markides, *Annual Report of the Curator of Antiquities* (1916) 16 ff.; Schaeffer, *Missions en Chypre*, Appendix i. 119 ff.; Casson, *Ancient Cyprus* 72 ff.;

Daniel, *AJA* xlv. 249 ff.; F. H. Stubbings, *The Mycenaean Pottery of the Levant* 45 ff.; O. Masson, *Minos* v. 9 ff.; Ventris and Chadwick, *Documents in Mycenaean Greek* 60 ff.

¹⁹⁰ P. Dikaios and J. L. Myres, *Antiquity* xxvii. 103 ff.; P. Dikaios, *Antiquity* xxviii. 233 ff.

¹⁹¹ P. Dikaios, *Antiquity* xxx. 40 f.

¹⁹² Ventris, *Antiquity* xxx. 41 f.

¹⁹³ Ventris and Chadwick, *Documents* 62 f.

¹⁹⁴ He was misled about the date of the 'Achaean' settlement of Cyprus, putting it 'between 1400 and 1350 B.C.'. It is very improbable that any Mainland settlement of Cyprus took place before 1200 B.C.

The problem, as it affects the present discussion, may be stated as follows. A syllabic script was written—or, at any rate, understood—in at least one Cypriot town as early as 1500 B.C. Its closest affinities are with the entirely Cretan Linear A script. By 1500 B.C. hardly any Mycenaean contact with Cyprus can be proved, and it is not until c. 1425 B.C. that Mycenaean pottery appears in appreciable quantity. The later history of the Bronze Age script in Cyprus does not seem to have been affected by Linear B, and therefore, as Ventris hinted,¹⁹⁵ Evans and Daniel may well have been right about the part played by Linear A. This conclusion would appear in a more favourable light if there was independent evidence for contact between Crete and Cyprus in Late Minoan I. As it is, there are hardly any artefacts to support the case. The evidence both earlier and later is much more impressive.

For the time being, the discovery of the 1955 tablet, with its broad hint of close relationships with Crete at the turn of the sixteenth and fifteenth centuries B.C., raises many more problems than it solves. Are we to fall back on the rather unconvincing plea that Late Minoan I material *must* have come to Cyprus, but has not been found yet? The only argument in favour of this view would be the undoubted links, direct or indirect, between Cyprus and Crete during the Middle Bronze Age.

While one result of this study has been to establish the existence in Cyprus of more Minoan material than is normally admitted, it must be stressed that, in absolute terms, the volume is small, especially when it is compared with that of Mycenaean material recorded in the island.¹⁹⁶ Even though future work will undoubtedly add to this list, it is doubtful whether the relative proportions will ever be seriously affected. Only in the case of the *Kokkinokremmos*¹⁹⁷ site at Pyla is there any hint of possible Minoan settlement. Here, an abnormally high proportion of Minoan objects representing types¹⁹⁸ as yet found nowhere else in Cyprus is recorded; it is at least a possibility that a small group of Cretan settlers chose this site on the coast for a home, and, perhaps, a sanctuary.¹⁹⁹ Apart from Pyla, however, the most that the Minoan objects in Cyprus can represent is a sporadic trade with the island (concentrating mainly on the south coast ports), the highest tempo of which seems to have been in the region of 1300 B.C.

It has always been recognized that there is little evidence for return trade between Cyprus and the Aegean in the fourteenth to thirteenth centuries B.C.²⁰⁰ So far, only one or two White Slip sherds have been found in Crete,²⁰¹ though Evans believed that some late cylinders found there were either Cypriot, or under strong Cypriot influence.²⁰² It is not unreasonable to suppose that the main trade in the westward direction was in copper.²⁰³

H. W. CATLING
V. KARAGEORGHIS

¹⁹⁵ Ventris and Chadwick, *op. cit.* 63.

¹⁹⁶ Imported Mycenaean III vases could undoubtedly be counted in their thousands in Cyprus.

¹⁹⁷ Cf. 17, 18, 19, 20, 28, and 36.

¹⁹⁸ e.g. the very large amphoroid craters and the plain pithos.

¹⁹⁹ On a large but fragmentary stone tripod trough found on the surface at *Kokkinokremmos* is carved in relief 'Horns of Consecration'. Apart from the vase *CVA* Great Britain 23. 16, this is the only appearance of this Minoan religious symbol in the island. Its significance is inevitably enhanced by its association with the other Minoan objects from this site. The trough must have been made in Cyprus, as it is of soft Athienou limestone. Now in Larnaka Museum.

²⁰⁰ For the find-spots of Cypriot material in the Aegean

up to 1940 see Gjerstad, *Studies* 324 ff., supplemented by Sjöqvist, *Problems* 151 ff.

²⁰¹ Two White Slip sherds were found by S. Alexiou in 1955 in his excavation at the harbour town of Kátsamba. The writers acknowledge his kindness in allowing them to mention the find.

²⁰² On Cretan cylinders see also Chapoutier, *AE* 1937, 321 ff. Drerup believes (*Forschungen auf Kreta* 88) that the Suda Chariot Vase (*op. cit.* pl. 65; 4-6) was painted in Cyprus, which is improbable; cf. Picard in *Journal des Savants* 1955, 102.

²⁰³ Though there is no direct evidence for this; the so-called Oxhide ingots, it must be stressed, are no earlier than c. 1200 B.C. in Cyprus—their origin is not Cypriot, though it may well be Aegean.

PROTOGEOMETRIC GRAVES AT AGIOS IOANNIS NEAR KNOSSOS

(KNOSSOS SURVEY 3)

(PLATES 31-39)

THE graves published here lie in a group by the junction of the main Knossos-Heraklion road and the secondary road to Ambelakia (FIG. 1). In May 1939 workmen widening the road to Ambelakia uncovered a tomb (Tomb I) which was cleared by the British School's Curator at Knossos, Mr. R. W. Hutchinson. In the summer of the same year the late Mr. T. J. Dunbabin,

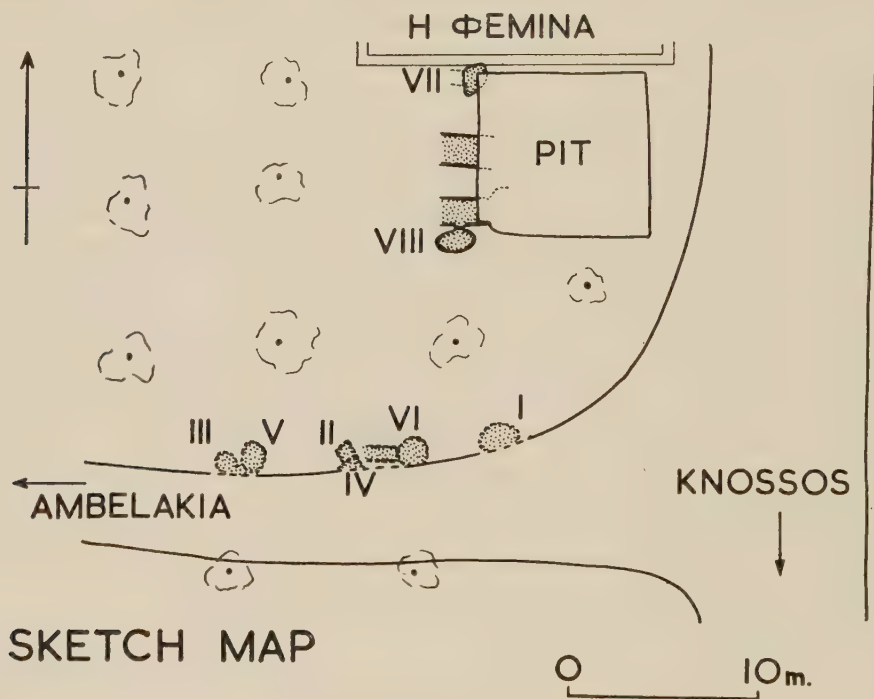


FIG. 1. THE A. IOANNIS CEMETERY

then Assistant Director of the British School, excavated five other tombs (Tombs II-VI) in the roadside. During the war a rectangular pit was dug near the road-corner by the occupying forces in Crete, presumably for a shelter which was never constructed. The pit revealed at least two other tombs whose contents were taken to Heraklion. The vases were subsequently removed from the island but for two which the ephor, Dr. N. Platon, rescued for the museum, and which he has kindly permitted me to publish here (Vases A and B). In September 1953 I excavated the dromoi of the two tombs which had been in the pit and cleared a side chamber in one of them (Tomb VIII), as well as a small tomb which had been partially disturbed by the pit (Tomb VII). Mr. Hutchinson and Mr. Dunbabin kindly accorded me permission to publish their finds, some drawings of which had already been prepared by Miss E. A. B. Petty and

Miss V. Rogers (now Mrs. G. U. S. Corbett and Mrs. M. Russell). Mr. Hutchinson's excavation notebook at Knossos had been lost during the war, but there are only slight doubts about the exact locations of the tombs, as the refilled chambers are still apparent in the side of the road. Except for a number of clay beads all the small finds from Tombs I–VI were lost during the war and are known only from rough sketches and one or two photographs taken at the time of excavation; some vases of minor importance have also yet to be identified in Heraklion Museum.¹

THE TOMBS AND THEIR CONTENTS

All the graves are cut in the soft *kouskouras* and the roofs of the chambers had all collapsed. For the terminology and the dating of the finds the reader is referred to J. K. Brock's publication of the graves at Fortetsa² and V. R. d'A. Desborough's discussion of Cretan Protogeometric pottery.³ Comparanda are given in the catalogue, but pieces of individual interest as well as general problems are discussed in a later section. It has seemed best to hazard dates based on the evidence of the Fortetsa graves, but in some cases the contexts of the A. Ioannis finds allow tentative dating for vases otherwise not distinctive or of types not met in significant contexts at Fortetsa. In the illustrations the vases have been grouped by shapes, not tombs, because individual burial groups could not generally be distinguished, and this presentation of the material seemed likely to be more useful.

The fabric of the pottery is consistently pink or brownish and well levigated;⁴ only variations are noted in the catalogue below.

TOMB I

This was the richest of the tombs and the first to be opened. Sketches show it oval in plan, 1.70 × 1.40 m. Any trace of a dromos had been destroyed before the start of controlled excavation. The vases were piled above the floor in an irregular manner, very few of them in an upright position. The excavator noted that the earliest burial was a full-length inhumation, head to the east. Above this was at least one cremation burial, but the vases were so mixed that it was not possible to determine which belonged to which burial, except for the one cremation urn whose contents are recorded (I. 2). Of the other finds the 'belt' and two spear heads belonged to the inhumation, and the bronze rings and clay beads, which were found at an appreciably higher level, probably to one of the cremations.

1. Amphora (PLATE 32). H. 0.49. Bands: three on the shoulder, two round the lower part of the body, one on the neck. On the shoulder simple scrolls. Handles slashed so as to appear twisted. Two black lines inside the mouth which flares.

MPG.⁵ The only example exactly of this type from Fortetsa (pl. 14, 205 and p. 146) is tentatively dated thus. The companion vases to IV. 1 and VIII. 1 and 2, which

are of the same type, suggest that this dating may be correct. There were two miniature vases of this type at Fortetsa (nos. 213, 252, not illustrated). An example from Kollyva Metochi (*ADelt* xiv. 2 fig. 1, 4) is in the company of three SM–EPG vases, and there are examples from Hogarth's Tomb 3 at Knossos and Vrokastro (*ibid.* 10, fig. 10). One was found in a tomb at Knossos in 1958. Desborough (*PGP* 252) thought the type Geometric, but admitted a probable

¹ Preliminary reports appeared in *JHS* lix (1939) 204 f., lxiv (1944) 86. For the war-time activities see *KCh* i (1947) 633. The photographs in PLATES 31 (I. 11), 32 (A, B) are by E. M. Androulakes.

² *Fortetsa: Early Greek Tombs near Knossos* (1957); here referred to as *Fortetsa*.

³ *Protogeometric Pottery* (1952) 233 ff.; here abbreviated to *PGP*.

⁴ For a description of the standard Knossian Proto-geometric fabric see *PGP* 238, *Fortetsa* 186.

⁵ I repeat for convenience Brock's abbreviations and dating as proposed in *Fortetsa*:

SM	Sub-Minoan	1020–970 B.C.
EPG	Early Protogeometric	970–920 B.C.
MPG	Middle Protogeometric	920–870 B.C.
LPG	Late Protogeometric	870–850 B.C.
PGB	Protogeometric B	850–820 B.C.

Protogeometric prototype; I rather doubt whether any need be as late even as PGB. See below, p. 145.

2. Amphora (PLATE 35). H. 0.23. Plain, pale-yellow clay, with a coarse moulding at the foot and four incised lines round the belly. Very broad mouth.

PG. Compare the broad-mouthed plain vases, *Fortetsa* pl. 8, 131; 18, 242; 19, 278; but there is no exact parallel for this 'belly-amphora' with handles joining below the rim.

3. Neck-amphora (PLATE 33). H. 0.65. Dull black paint. A broad band on the body and two narrower bands below. A narrow band on the rim and at the junction of neck and body; the handles have a cross between bars. The vase is slender with its centre of gravity high; the handles join the neck half way up; flaring lip. On one side, two depressions in the wall of the vase where two other vases leant against it in the kiln. The vase is partly warped on this side; it was broken and some fragments burnt.

LPG. The angular profile of the lip and the simple bands on the body show that this and I. 4 come late in the PG series of neck-amphorae. The absence of circles on the shoulder and the handle decoration are also late features. Cf. *Fortetsa* pl. 19, 285; *BSA* xxix, pl. 5, 6; and an as yet unpublished example from a *Fortetsa* grave dug in 1954.

4. Neck-amphora (PLATE 33). H. 0.63. Bands, as I. 3. Slender; centre of gravity lower than I. 3 and with an incipient base-ring. Handles with two crosses and bars; red-brown paint, with two blobs dropped on the shoulder.

LPG. See I. 3.

5. Neck-amphora. H. 0.60. Bands, as I. 3, but the shape is shorter and fatter. Red-brown paint; handles black.

LPG. See I. 3.

6. Krater (FIG. 5). H. 0.35. Remains of black paint inside and out which apparently covered the entire vase. Reddish clay of pale brick colour and many impurities. Bands of incised dashes round the body and at handle level; incisions slanting alternately to right and left on the lip; slashes on the handles to imitate twisting.

LPG. Cf. *Fortetsa* pl. 19, 278; *ADelt* xiv. 3, 10, fig. 12 (Phoinikia).

7. Krater. Missing since the war.

8. Bell-krater (PLATE 34). H. 0.37. Two groups each of eleven concentric circles, filled with Maltese cross, joined on one side by a strip of downward triangles, on the other by a hatched band. One broad and two narrow bands round the lower body; black handles, the rest plain. Plain base-ring. The lip is offset, its top plain with bands inside and out.

? LPG. The black lip and light ridge below it are comparatively late features. For the horizontal link between the circles cf. *AM* xxii. 244, figs. 14, 14a; *AJA* i. 252, figs. 1-2 (*Mem. Ist. Lomb. Cl. di Lett.* xxii. 2, pl. 5, 12: *Prinias*); *Ann.* xxxv-xxxvi. 358 ff., figs. 216c, 218a, b. This was not much favoured in Attica, but appears on some Rhodian vases (cf. *PGP* 231 pl. 30, top left).

9. Bell-krater (PLATE 34). H. 0.291. Concentric circles filled with hour-glasses in groups of seven, two groups on each side, in free field; below, a broad and four narrow bands. Foot, handles, and lip painted black.

? E-MPG. See III. 1 which is very similar.

10. Pyxis (FIG. 4). H. 0.12. Black, except for the base and an irregular area above it. Rim flattened and slightly concave.

M-LPG. A cross between a globular pyxis and a small necked-pithos, cf. *Fortetsa* pl. 18, 246 and 244; 19, 278.

11. Standed krater (PLATE 31). H. 0.51. Black lip and base; three broad and two thin bands below the handle zone. Double handles with a knob projection at the junction of each pair. Between the handles alternating groups of ten concentric semicircles, their centres filled with black triangles. The upper bays contain black silhouette birds (FIG. 9) with exaggeratedly long tails and legs; the lower bays have pendent cross-hatched diamonds. Stripes along the handles, blobs along the rim.

PGB. For the kangaroo birds cf. *Fortetsa* pl. 23, 354; for the alternating semicircles *ibid.* pl. 28, 448; *BSA* xxix. 270, fig. 32, 23 (from no. 12, pp. 233 f.); *PGP* 244. The shape and the handles derive directly from Attic Protogeometric, but the flaring foot is a later, Early Geometric feature in Attic. It appears also on the Marmariani kraters (cf. *PGP* pl. 23). For later Knossian examples of the shape see *BSA* xxix, pl. 7, 4; *PGP* 245; Oxford 1927. 4611 (*CVA* ii pl. 1, 11) and cf. *Vrokastro* pl. 25, 2 (*PGP* 266). See below p. 146.

12. Krateriskos. H. 0.13. Black inside; outside black with nine reserved lines between the rim and handle level; the foot and lower third of the vase plain.

E-MPG.

13. Krateriskos (PLATE 34). H. 0.18. The upper half black. SM-MPG. Cf. *Fortetsa* pl. 17 top left (MPG), but also SM in the Spring Chamber (*PM* ii. 136, fig. 69); cf. *PGP* 240.

14. Krateriskos (PLATE 35). H. 0.084. As the last.

15. Krateriskos (FIG. 4). H. 0.095. As the last.

16. Krateriskos (PLATE 35). H. 0.093. As the last.

17. Krateriskos (PLATE 34). H. 0.114. As the last.

18-38. Krateriskoi. Not individually identified. The heights range between 0.18 and 0.084. As the last; dipped so that their inside and upper part outside is black.

39. Stirrup vase. H. 0.17. Coarse. A row of blobs on the shoulder. The top of the mouth and handles black. A broad band flanked by two narrow bands on each side of the shoulder, and a broad band round the lower part of the body.

E-MPG. Compare III. 3.

40. Oenochoe (PLATE 35). H. 0.128. Cross-hatched triangles on the shoulder, two bands below; band on the lower part of the body; bands on the collar, handle, lip. Trefoil mouth, flat bottom.

M-LPG.

41. Oenochoe (FIG. 4). H. 0.163. No foot; bands round the base, body, and shoulder; on the collar a necklace with four pendent dashes. Black base to the handle which carries a wavy line. Black lip with a trickle of paint inside the mouth, which is trefoil.

? MPG.

42. Oenochoe (PLATE 35). H. 0.173. As the last. ? MPG. Cf. *Fortetsa* pl. 12, 142.

43. Oenochoe (PLATE 35). H. 0.203. Trefoil mouth; broad flat base. On the shoulder three groups of two concentric

circles; below, three bands, two bands on the lower part of the body, a band round the collar and base of the handle, a wavy line up the handle, the lip black. The clay red inside with many impurities; a pale hard surface. The paint varies from lustreless black to red (where the vase has rested against another in the kiln).

? PGB. Cf. *Fortetsa* pl. 21, 274 for the shape, but the economy in circles is not truly Protogeometric, cf. *PGP* 244.

44. One-handled cup (PLATE 36). H. 0.051. Black, with a reserved handle which rises above the everted rim.

M-LPG. Cups with offset rims appear at *Fortetsa* (p. 166 Type Bi-ii) in LPG contexts. In our Tomb V they appear somewhat earlier.

45. One-handled cup (PLATE 36, FIG. 5). H. 0.073. Dipped so as to leave segments painted on either side of the lip.

M-LPG. See I. 44. For the decoration, *Fortetsa* 187.

46. One-handled cup (PLATE 36). H. 0.09.

M-LPG. See I. 44.

47. One-handled cup (FIG. 5). H. 0.063.

M-LPG. See I. 44.

48-55. One-handled cups. Not individually identified.

56. Pyxis (PLATE 35). H. 0.142. Black bands; alternating hatched triangles in the handle zone. Footless; rim everted. Small horizontal handles high on the shoulder.

? MPG. Cf. *Fortetsa* pl. 18, 246 and *BSA* xxix, pl. 6, 14 (*PGP* 243) for the shape. The decoration survives from the Bronze Age. This is a notable exception to the clay-ground technique of this period.

57. Pyxis (FIG. 4). H. 0.094. No handles; two holes in opposite sides of the rim for the attachment of a lid. Base and lower quarter of the body plain, the upper part black with an irregular reserved stripe.

? MPG. For Knossian examples and one from Afrati (Geometric) of this shape see *PGP* 242, *Fortetsa* 128, 1470; three of the four examples hitherto known at Knossos had low feet. For an EO handleless example see *BSA* xlix, pl. 26, 57.

58. Pyxis (PLATE 38, FIG. 4). H. 0.077. Horizontal handles on the belly. A panel with cross-hatching, flanked by three verticals; cross-hatched diamonds on either side. Three bands below and a band on the lower part of the body. The base and inside of the mouth painted.

? LPG. The earliest examples from *Fortetsa* (p. 165) are deeper and from LPG contexts. Ours is far closer in shape to its Bronze Age prototype, and it may be that after all the shape survived in Crete and was not reintroduced from Cyprus as Brock suggests. See also *PGP* 242 on its ancestry.

59. Carinated jar with a lid. Missing since the war.

The small finds I. 60-63 are missing since the war.

60. Two iron spear heads and other fragments of iron.

61. A bronze 'belt'.

62. Four (or five) bronze rings, of which one (or two) are double.

63. Three clay beads.

TOMB II

A rectangular tomb approximately 1.40 × 1.30 m., dug at the level of the upper end of the dromos to Tomb VI, which is earlier than it (FIG. 2). It was cut into by Tomb IV. Among the sherds in the fill was one of good Geometric style. One arm-bone was the only surviving evidence for the inhumation burial. All the finds were in the western corner of the tomb except for II. 2 and 3, on their sides near the centre.

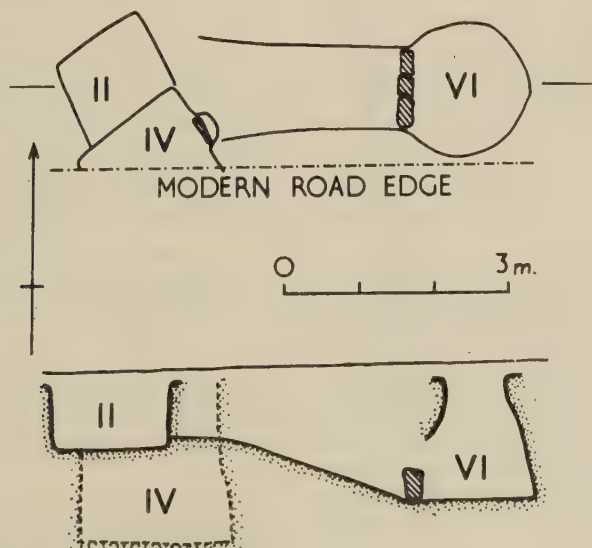


FIG. 2. DIAGRAMMATIC PLAN AND SECTIONS OF TOMBS II, IV, VI

1. Stirrup vase. H. 0.143. Hatched triangles on the shoulder, a broad band below; bars on the handle; inside the mouth two black lines and one outside the lip. Air hole, and knob on false mouth.

EPG.

2. Drinking jar, without top handle. H. 0.075. A large black spot on each side, the top of the spout black. Good yellowish clay.

? EPG. See **VIII. 9** and *Fortetsa* pl. 38, 623 for the decoration. The full profile of this (and **IV. 6, V. 12**) seems earlier than that of the *Fortetsa* vase.

3. Drinking jar. Top handle with spur. A large black spot on each side; the under part of the spout black and a spot below. The handle is painted.

? EPG. As the last.

The small finds **II. 4-6** are missing since the war.

4. Bronze wire armlet with one small loop.

5. Fragment of a bronze fibula.

6. Whetstone of rectangular shape with a projection at one corner by which it could be suspended.

TOMB III

A tomb with an oval plan, approximately 2.0 × 1.70 m. It appears to have cut into the dromos of Tomb V. Cremated bones were found in the bell-krater **III. 1** which stood near the north wall of the tomb. All the other finds were grouped beside it to the west.

1. Bell-krater (PLATE 34). H. 0.36. Diam. between handles 0.317; the mouth is elliptical, the diameter at right angles to the handles being c. 0.30. Bands; between the handles two groups of five concentric circles with a large central blob. The paint has nearly all disappeared but the circles appear to have been in a free field.

? EPG. The date is partly suggested by the other vases of the tomb, which seems to hold only one burial. The EPG examples of the shape at *Fortetsa* (pp. 160 f.) are somewhat slimmer, but the only thing in the decoration of our vase against this early date is the small number of circles in each group.

2. Stirrup vase (PLATE 38). H. 0.167. The shape and triangle pattern on the shoulder nearly as **V. 5**. Black handles, knob, and inside of the spout. Bands on the body; a black foot. The spout and the knob of the false mouth touch. Air hole.

SM-EPG. Cf. *Fortetsa* 153 for the early, curvilinear triangles; and *PGP* 238 f.

3. Stirrup vase (PLATE 38). H. 0.167. Rows of small blobs on the shoulder, bars on the handles and spout; circles on the knob, bands on the body. Small spike on the false mouth which touches the spout; air hole. Well-turned foot.

EPG.

4. Oenochoe (PLATE 35). H. 0.094. Black bands at the mouth and top part of the handle. String marks on the base.

? EPG. Compare a vase from Athens described by Desborough as transitional from Sub-Mycenaean to Proto-geometric and perhaps an experimental shape (*PGP* 2, 4, pl. 1, 6).

5. Skyphos (PLATE 38). H. 0.082. Bands inside and out, the upper band on the outside being wavy.

EPG. Cf. *Fortetsa* pl. 6, 61 and the related, early kalathos *ibid.* pl. 5, 36.

6. Fragments of iron and bronze. Perhaps an iron pin (l. 0.113). Missing since the war.

TOMB IV

A quadrilateral tomb measuring 1.50 × 0.85 × 1.35 × 1.40 m. It was cut through and below Tomb II, and through the dromos of Tomb VI (FIG. 2). Of the finds **IV. 1, 3** and part of **4** were together in the north corner of the chamber and all the other vases, with the rest of **IV. 4** and cremated bones, in the east corner. Yet another fragment of **IV. 4** was found beneath a stone which stood in the north-east wall of the chamber concealing a niche (0.55 deep × 0.48 m. wide). This contained only uncremated bones. Before the niche was a small area with ash, burned animal bones (? of a bird), and what seemed to be the remains of a meal including vegetable matter ('chick-peas or something of the sort'), and three lumps of earth which preserved the shape of some decayed objects, like small eggs. The sweeping aside of the vases, including the apparently deliberate breakage of **IV. 4** and the consignment of the bones to the niche with the possible signs of preparation for a meal before it, seem all to belong to one occasion. The krateriskos **IV. 3** was found in the mouth of the amphora **IV. 1**, which was standing in the north corner of the chamber.

1. Amphora (PLATE 32). H. 0.43. Simple scrolls on the shoulder; three bands below and a black collar. Black mouth, handles, and rings at the handle bases. The handles are slashed to imitate twisting.

? MPG. See **I. 1**.

2. Krateriskos (PLATE 37, FIG. 4). H. 0.101. Zigzag in the

handle zone. Mouth black and a reserved line inside the rim.

EPG. Cf. *Fortetsa* pl. 6, 49 and 60.

3. Krateriskos (FIG. 4). H. 0.117. The inside and upper part black.

SM-MPG. See **I. 13**.

4. Stirrup vase (PLATE 38). H. 0.138. A spike on the knob. Hatched triangles on the shoulder; bars on the handles and outside the mouth. The top of the knob and inside of the mouth black; black band below the shoulder. The lower part of the vase is plain. The mouth and knob touch, the knob overlapping. Air hole.

EPG.

5. Drinking jar (PLATE 37). H. without handle 0.097. A top handle with spur. Large blobs on each side and a semi-circular painted area on each side of the lip.

? EPG. See II. 2.

6. Drinking jar (PLATE 37). H. 0.083. The handle is broken away. Decoration as IV. 5, but more careless. The spout is painted inside. The paint has fired red.

? EPG. See II. 2.

'Other sherds found in IV are from a large vase, amphora, or the like, made of clay with a great deal of foreign matter, with a whitish slip. This vase (or perhaps vases) was found and broken when the modern road was made, and only unimportant sherds remain.'

The small finds IV. 7-10 are missing since the war. The photograph in PLATE 39 was taken at the time of excavation.

7. Iron pin with a spherical head (PLATE 39). L. c. 0.15.

8. Iron spear head (PLATE 39). L. 0.205.

9. Iron sword blade; fragment (PLATE 39). L. 0.097.

10. Plain bronze ring, and other scraps of bronze and iron.

TOMB V

A tomb with an oval plan, widening to the floor (1.70 × 2.30 m.). Its dromos was destroyed in part by Tomb III, in part by the modern road construction. The entrance, which was blocked by stones, stood in the south-east on the narrower axis. Some of the blocking stones were squared and were perhaps taken from a Minoan building. The finds were ranged along the wall facing the entrance except for beads and some sherds scattered on the floor and an iron spear head near the north-east wall (PLATE 31). Two separate groups of beads and rings were found, with two gold and one silver ring in each, and it seems likely that there were two burials—simultaneous, as no distinction can be drawn in the pottery. Amphora V. 1 may have contained cremated bones, but it was found broken.

1. Amphora with belly handles (PLATE 37, FIG. 6). H. 0.465. Wavy line on the neck, between lines. The mouth black outside with a black line inside. For the shoulder and body design see FIG. 6. The lower part is plain with a black band at the foot. No base-ring. The paint has completely faded. Five pairs of holes in the rim for fixing a lid.

EPG. An ornate example of this type of decoration, unusually here set between the handles and not on the shoulder only, as on VIII. 15. See below, p. 144.

2. Krateriskos (PLATE 34). H. 0.125. The upper part of the body black, with a reserved panel with wavy lines at handle level. Foot black; inside black with reserved centre. The rim carries black bars.

EPG. Cf. *Fortetsa* pl. 6, 49 and 60. Similar examples in an early context in the Spring Chamber (*PM* ii. 136, fig. 69), and cf. *Adelt* xiv. 2, fig. 1, 3 (Kollyva Metochi); and many Sub-Mycenaean.

3. Krateriskos (PLATE 34, FIG. 4). H. 0.136. Small foot with a large pin hole beneath. Wavy line at the handles; bands below. Black foot and black lip inside and out; paint spots inside.

EPG. See V. 2.

4. Stirrup vase (PLATE 38). H. 0.179. Shoulder patterns: herring-bone panel, branch, and two vertical wavy lines. The spout and handles barred, the knob black; bands on the body. Air hole.

EPG.

5. Stirrup vase (PLATE 38). H. 0.158. Triangle pattern on the shoulder; otherwise as V. 4.

EPG. Cf. *Fortetsa* pls. 38, 151: 628.

6. Oenochoe (PLATE 35, FIG. 5). H. 0.098. Plain mouth; no foot. Irregular bands.

PG. Cf. *Fortetsa* pl. 8, 119 (EPG), which has a narrower mouth.

7. Oenochoe (FIG. 4). H. 0.113. Trefoil mouth, the handle rising a little above it. Definite foot with a small knob underneath. The top half painted dull black ending in an irregular line.

MPG. Dipped, like the MPG krateriskoi.

8. Jug (PLATE 35, FIG. 4). H. 0.205. No foot; the mouth a slight trefoil. Wavy line on the neck, three groups of three verticals on the shoulder, a black line up the handles and on the rim. Black collar, base of handle, foot, and bands on body.

MPG. Cf. *Fortetsa* pl. 15 for the shape, and pl. 12, 142 for the decoration; also *Adelt* xiv. 2, fig. 1, 1 (Kollyva Metochi).

9. Oenochoe (FIG. 4). H. 0.117. As V. 7.
? MPG.

10. Oenochoe (PLATE 35). H. 0.098. Shape and decoration as V. 7, but better executed.

? MPG.

11. Hydria (PLATE 34). H. 0.26. The lip is missing. Bands and tendrils on the neck and body. A black collar and figure-eight on the upright handle.

? MPG. This type of decoration is left on the whole later at *Fortetsa*, and cf. *KChr* iv. 444, fig. 8 left (? PGB).

12. Drinking jar (PLATE 37). H. without handle 0.102. Black handle, mouth, and spout, and a large black blob on each side.

? EPG. See II. 2.

13. Kalathos (PLATE 38, FIG. 4). H. 0.045. Black line around the outside swinging down between the handles; bars on the rim in groups of seven; splashes of paint inside.

EPG.

14. Kalathos (PLATE 38, FIG. 4). H. 0.055. Black inside except the bottom. Bars on the rim in four groups of eight; outside, black lines, one of them wavy.

EPG. Cf. *Fortetsa* 162, pl. 6, 48, 71-72.

15. Skyphos (PLATE 38, FIG. 4). H. 0.082. Black inside and bars on the offset rim. Lines outside with a wavy line at handle level.

EPG. See III. 5.

16. One-handed cup (PLATE 36, FIG. 5). H. 0.059. Inside, a band and a big dot; outside, bands, one wavy; they do not meet at the handle. No foot; a very small base on which the vase stands unevenly.

? EPG. Compare the all-black example with a similar, squat profile, VIII. 12. For the decoration in EPG cf. *Fortetsa* pls. 6, 11.

17. One-handed cup (PLATE 36, FIG. 5). H. 0.072. Slightly everted rim; inside black with a reserved line at the rim, and reserved bottom (small knob). Outside, black with the base and lower third of the vase plain.

M-LPG. See I. 44. An unusually narrow cup.

18. One-handed cup. Black with a reserved handle. Not identified.

19. One-handed cup (PLATE 36). H. 0.059. Small base.

20. One-handed cup (FIG. 5). H. 0.045. As V. 18 but better made with a broader base. The handle has a rudimentary ridge on the side.

? MPG. The straight rim may be somewhat earlier than the everted type, as I. 44, but later than shallow cups like V. 16. There is one cup like this at *Fortetsa* (pl. 38, 622), apparently EPG or MPG.

21. One-handed mug. H. 0.103. Plain, red, unrefined clay. No foot; string marks on the base.

22. One-handed cup (FIG. 5). H. 0.116. Same fabric as the last, but with more impurities. Plain foot, small handle, and a rather rough everted rim.

E-MPG.

23. Small pithos (PLATE 35). H. 0.208. Offset rim. Black neck and handles, bands on the body, two wavy lines at handle

level but the rim reserved with bars in groups of seven; paint drips inside.

E-MPG. An unusual shape the elements of which can be traced on other vases. A probable contemporary with deeper neck is *Fortetsa* pl. 8, 122 (EPG, its overseas relations discussed by Brock on p. 16), but the SM jar *ibid.* pl. 3, 20 is closer in shape.

24. Straight-sided jar (FIG. 5). H. 0.14. No foot. The paint has turned red on the lower part of the body. Pale-red clay.

EPG. Cf. *Fortetsa* 161 f. Type A; *PGP* 242.

25. Askos. H. without handle 0.218. Top handle and spout; no foot. Wavy line on the shoulder, black bands; the handle and spout black. Missing since the war.

Probably EPG.

26. Coarse tripod. Missing since the war.

The small finds V. 27-34 and 37 are missing since the war. The photograph in PLATE 39 was taken at the time of excavation.

27. Two iron pins (PLATE 39). L. c. 0.13 and 0.04.

28. Iron spear shaft. L. 0.23. Featureless.

29. Bronze arm ring, as II. 4, and other scraps of bronze.

30. Four gold rings (PLATE 39). Diam. 0.016.

31. Two silver rings (PLATE 39). Diam. 0.017.

32. Small amethyst bead (PLATE 39).

33. Two pieces of rock crystal (PLATE 39). Probably from a Minoan vase.

34. Glass bezel of a ring; plain (PLATE 39). Other scraps of glass. More probably late contamination than Minoan.

35. About 250 clay beads of a grey or brown fabric. A selection appears in PLATE 39, FIG. 10. They carry impressed or incised decoration of circles, zigzags, dashes, and dots. Most are spherical, some biconical. Their heights range from 0.013 to 0.021, and the diameter of the holes is c. 0.005. See below, pp. 146 ff., for further description and discussion.

36. Clay whorl (FIG. 9). H. 0.029. A painted band about its waist; chipped all round. Analogous perhaps to types like those illustrated in *Kerameikos* v. 1, pl. 146.

37. Small faience (?) beads (PLATE 39). These are not mentioned in the rough inventory of the tomb, but may have been included in the general heading 'beads'. They appear in the photograph taken at the time of excavation with other small finds from Tomb V.

TOMB VI

The earliest of the complex with Tombs II and IV (FIG. 2). A circular chamber (diameter 1.70 m.) widening to the floor. Its entrance in the west was blocked by stones, some of which were squared. The dromos could be traced for 2.10 m. before it was cut into by Tombs II and IV. Three skeletons and the bones of a baby were heaped together by the north wall of the grave, together with the vases and other finds. Either the bones must have been put into the grave as bones, or they had been swept to one side after the original deposit. The vases belong to a single deposit and there is no trace of objects which might belong to any other.

1. Amphora. H. 0.39. Simple scrolls on the shoulder, a wavy band round the lower part and up the handles. A band inside the mouth.

MPG. See I. 1.

2. Krateriskos. H. 0.084. The upper part black.

? EPG. See I. 13.

3. Krateriskos (PLATE 35). H. 0.072. The upper part black.

? EPG. See I. 13.

4. Stirrup vase. H. 0.147. There are bars on the handles, circles on top of the knob and a small spike. Bars on the outside of the spout; the top and inside of the mouth black. Black line round the foot and another round the lower part of the body. Profile as IV. 4.

SM-EPG. Cf. *Fortetsa* pl. 132, 13.

5. Plain bronze ring and other scraps of bronze. Missing since the war.

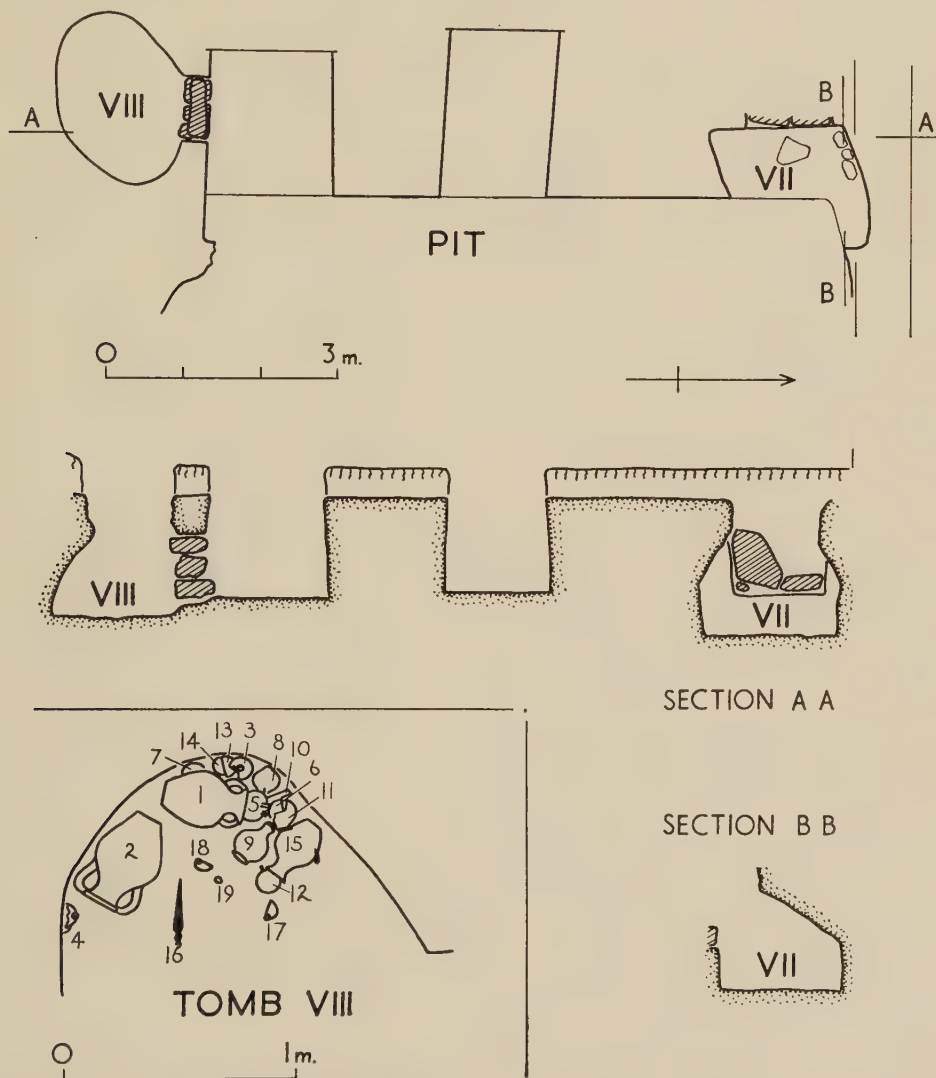


FIG. 3. PLAN AND SECTIONS OF TOMBS VII, VIII

TOMB VII

A small rectangular chamber, 1.80×0.65 m. (FIG. 3). Its south-east corner was cut away by the war-time pit. The two lowest blocking stones of its entrance in the east were in position. The floor of the chamber lay some 0.55 m. beneath the bottom of the entrance; 0.15 m. above the

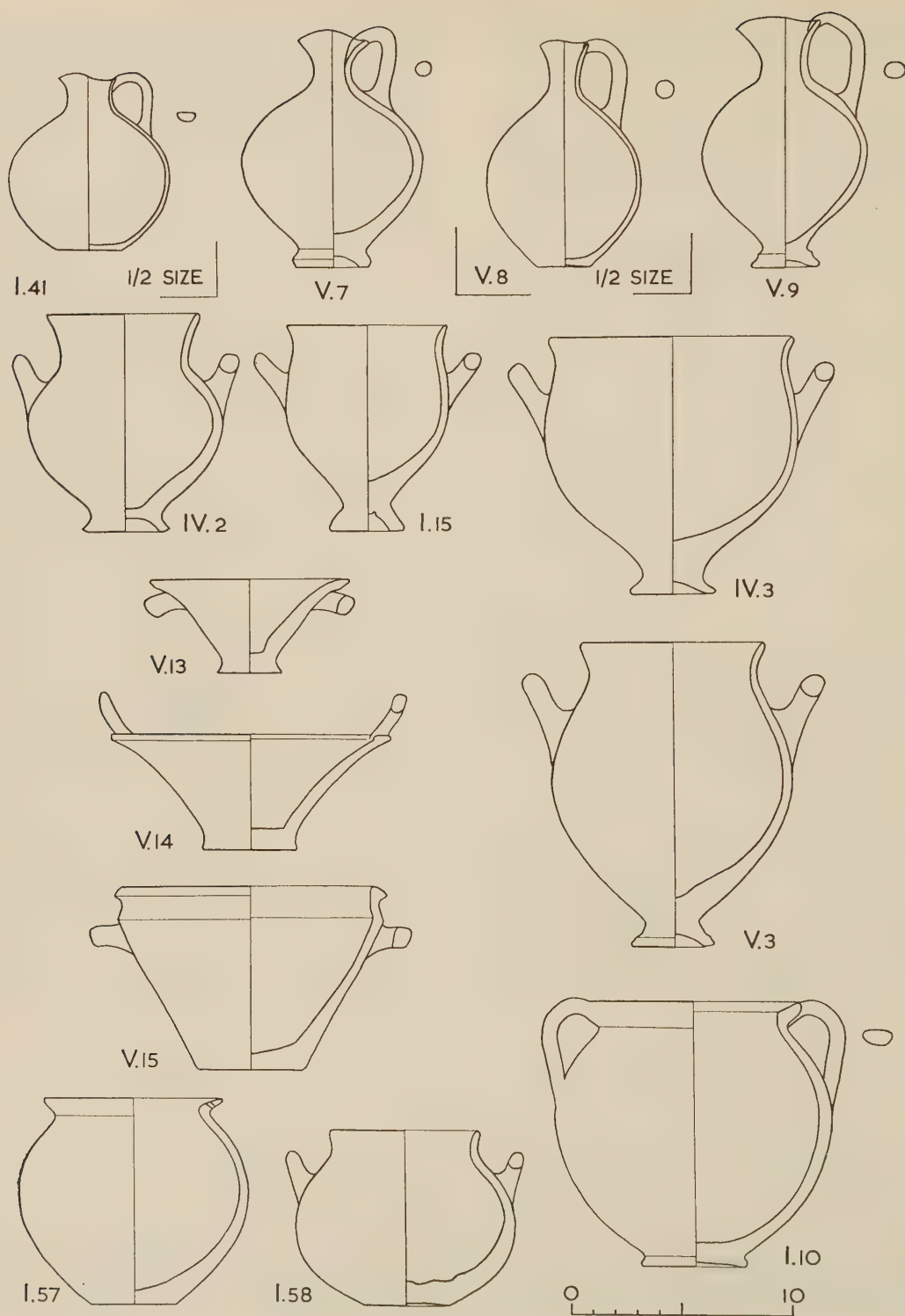


FIG. 4. VASE SECTIONS

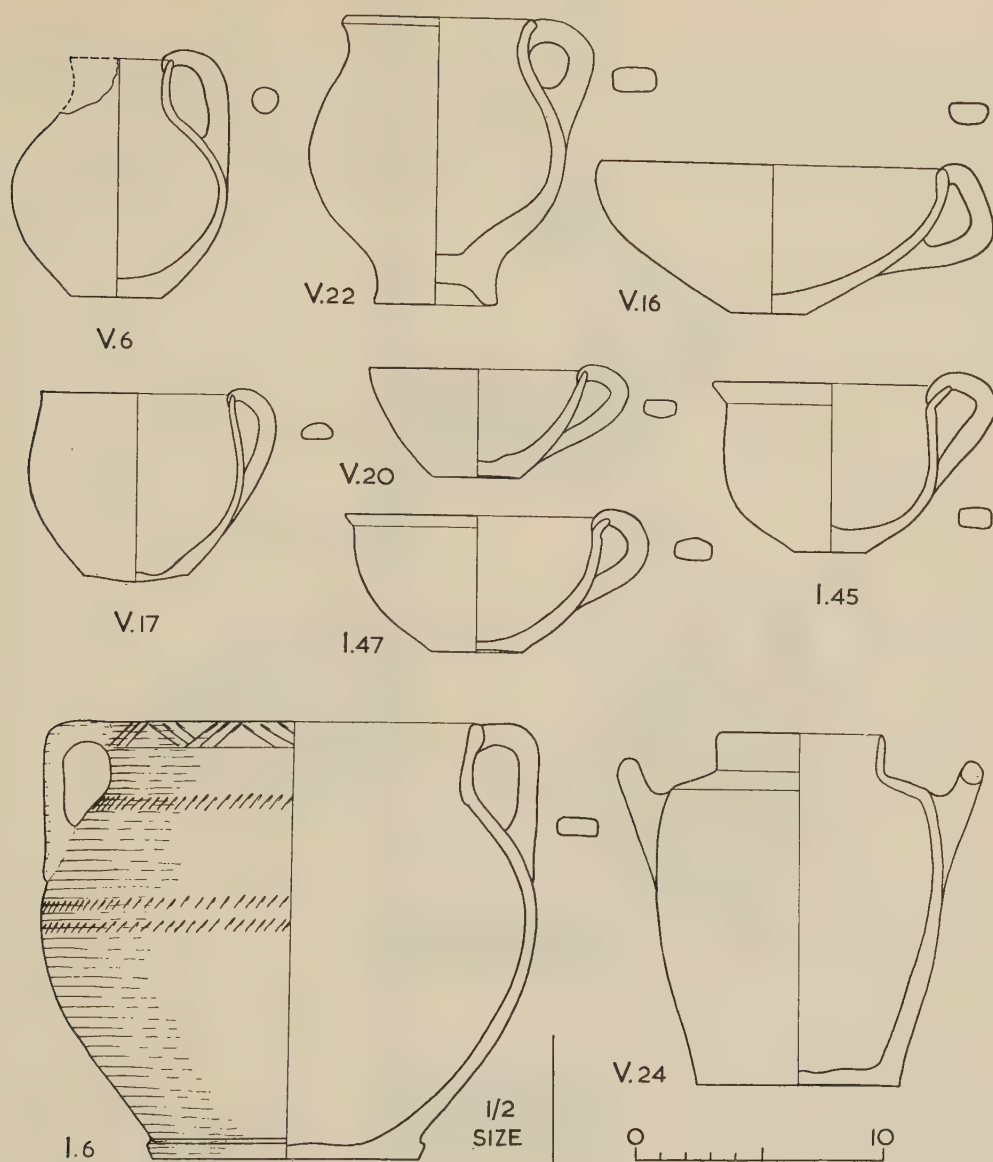


FIG. 5. VASE SECTIONS

floor lay five stones, possibly from the blocked entrance which must have been forced in antiquity. Between and beneath these stones were found fragments of the only surviving vase, together with scraps of unburnt human bones indicating inhumation.

1. Stirrup vase (FIG. 8). H. 0.123. The spout and part of the body is missing, the surface poorly preserved. The handles have a rounded section and bear cross-bars. On the knob circle and dot, and a small spike; air hole. A broad

band below the shoulder decoration, three thin bands on the body; the foot is painted.

SM-EPG. See III. 2.

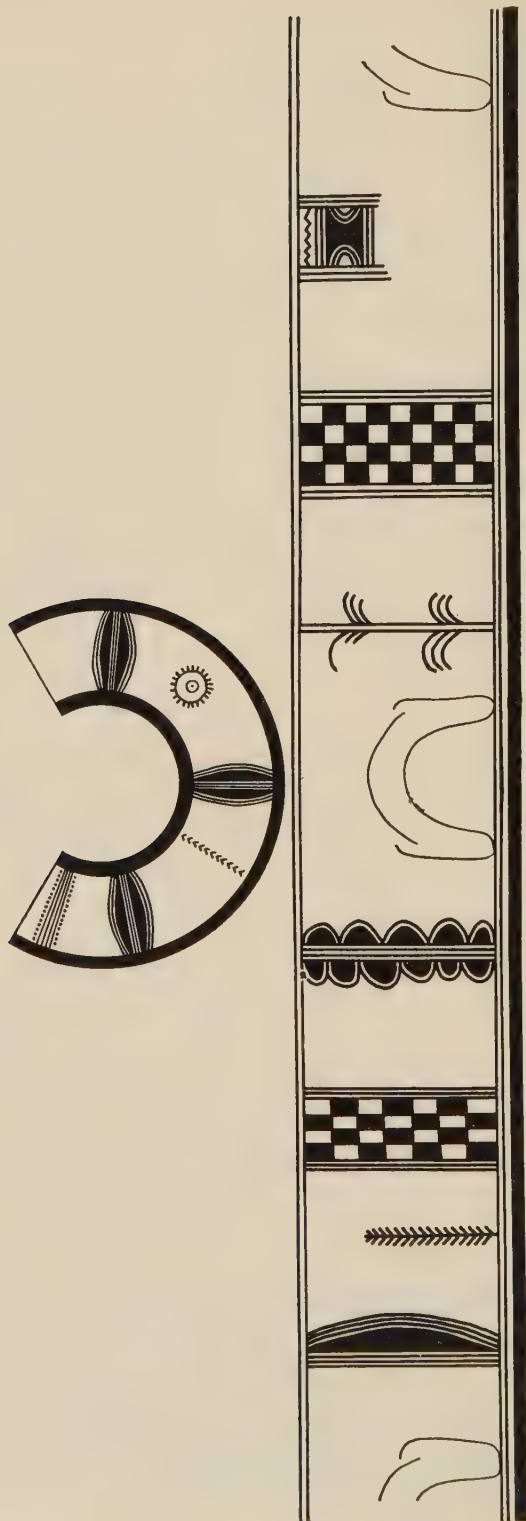


FIG. 6. DEVELOPED DECORATION OF V. 1. SCALE 1:4

Tomb VIII

This is the oval side chamber to the dromos of one of the larger tombs lost in the war-time pit (FIG. 3). The dromos has a slope of 1:4, and was 1.50 m. broad at the floor, narrowing to 1.35 m. at 1.80 m. above the floor. Just within the outline of the modern pit and within its south-west corner the southern wall of the dromos seems about to narrow, presumably for the entrance to the main chamber. The entrance to the side chamber is 1.30 m. from this point. It was blocked



FIG. 7. DEVELOPED DECORATION OF VIII. 15. SCALE 1:2

with stones, some of them worked ashlar, no doubt from a Minoan building; larger stones filled the sides and bottom of the entrance while smaller were thrust into the centre to lock them into position. All the finds were in the west end of the chamber, where the vases had been swept, apparently to make way for an inhumation. Of this all preserved is a vertebra found adhering to a bronze fibula (VIII. 18) and other scraps of unburnt bone nearby. For the position of the finds see PLATE 31, FIG. 3. The mouths of the amphorae VIII. 1 and 2 seem to have been stopped by the stirrup vases VIII. 5 and 4, and the one-handled cup VIII. 12 may have blocked the mouth of the belly-handled amphora VIII. 15; these must have been the cremation urns of the earliest burials in the chamber. From the fill of the dromos came fragments of Geometric pottery and a miniature one-handled cup (VIII. 20), and there were L.M. III and Geometric fragments in the fill of the chamber.

Vases A and B are presumably either from the main chamber of this tomb or from the main chamber of the tomb whose dromos lies immediately to the north. This dromos was 1.40 m. wide at the floor, narrowing to 1.25 m. at 1.50 m. above the floor; the slope of the floor is 1:4.

1. Amphora (PLATE 32). H. 0.445. Wavy lines on the handles and lines encircling their bases. Bands on the lip and within it, on the collar, three on the shoulder, two on the belly, one at the foot. Simple scrolls on the shoulder. The fabric is coarse with many white stone inclusions.

MPG. See **I. 1**, but the handles are not slashed.

2. Amphora (PLATE 32). H. 0.455. Handles slashed to appear twisted, and painted; their bases flanked by curving lines. Bands on the lip, collar, shoulder, belly, and base. A zigzag on the neck. On the shoulder a scroll with several convolutions, unlike the hook ends on **VIII. 1** and similar amphorae from these graves. A slender, better made vase than **VIII. 1** with few gritty inclusions.

MPG. See **I. 1**, but the simple scroll is replaced by real spirals (cf. the decoration of the amphora *Fortetsa* pl. 7, 84, dated there EPG), and the zigzag on the neck seems an EPG fashion (cf. *ibid.* pl. 10, 186).



FIG. 8. DEVELOPED DECORATION OF **VII. 1**. SCALE 1 : 2

3. Krateriskos (PLATE 36). H. 0.077. A thin reserved line at the base of the lip. A broad band below the handle zone, which carries a row of dashes. Slightly hollowed, lopsided foot.

? MPG. The decoration derives from EPG types, as **IV. 2**, **V. 2, 3**; the broader shape is nearer the commoner M-LPG examples.

4. Stirrup vase. H. 0.156. Shape as **V. 5**. Parts of the body missing. Shoulder decoration as **VIII. 6**, but one of the triangles at the rear is embellished with a wavy line across its top. Spiral on the knob, bars on the handles and front of the spout; air hole. Below the shoulder pattern one broad and two thin bands; lower, two thin and one broad; the foot is painted and slightly hollowed.

EPG.

5. Stirrup vase (PLATE 37). H. 0.183. Spiral on the knob, which has a pronounced spike; bars on the handles and front of the spout; air hole. Hatched triangles on the shoulder as in the illustration; beneath, two broad bands flank three narrow, executed in thin paint. Thin, thick, thin bands near the foot, whose flaring toe is painted.

E-MPG. Cf. *Fortetsa* pls. 7, 37; 15, 218 for the shoulder decoration. The thinned lines enclosed in broader bands instead of edging them make a pattern unusual for Proto-geometric, though it is common on Late Bronze Age vases.

6. Stirrup vase (PLATE 37). H. 0.154. Spiral on the knob, which has a small spike; air hole. Double verticals flank spout and handles and centre back; semicircles fill the angles between them and the base line of the shoulder. Below are two thin lines, a broad band, four thin lines. The foot is painted and slightly hollowed.

SM-EPG. See **III. 2**.

7. Stirrup vase (PLATE 37). H. 0.104. The spout is missing. Spiral on the knob, which has a small spike; air hole. Painted handles. On the shoulder double lines fringed with dashes. Beneath, a broad band flanked by two thin. A band lower on the body; the foot is painted.

EPG.

8. Hydria (PLATE 33, FIG. 9). H. 0.205. Bands at lip and collar, between them a short wavy line; above the collar a line of dots and pendent from it five groups of four to five dashes. Bars on the handle. On the shoulder are painted four combs with circular handles; they have five to seven teeth. Below, four lines with pendent chevrons and wavy lines, two lines; the foot is painted. The vase is pitted with deliberately impressed cavities of irregular outline, which must have held stones or similar material. Of these there are four on the handle, six just below the collar, and one centre-front near the pendent chevrons.

? MPG. The shape is not known at *Fortetsa* until LPG, and Brock suggests (p. 147) that it replaces the stirrup vase. The decoration and narrow, high foot of our vase show that it is appreciably earlier. Nearly as early is *BSA* xxix, pl. 5, 8, also with a high foot; this leads to the very common PGB types with flat or ring bases. Compare the decoration of *Fortetsa* pl. 60, 1015 with that of the last cited vase. See below, p. 145, on the decoration.

9. Drinking jar (PLATE 37). H. 0.161 to rim. A light groove at the lip and collar. Painted neck with pendent dashes; painted spout. At the belly a broad band flanked by two thin lines. Painted conical foot, which is hollowed.

E-MPG. The decoration is EPG in type; cf. *Fortetsa* 153 for the shape.

10. Circular tray with two handles (PLATE 36). H. 0.03 to rim, diam. 0.122. Dots on the rim and bars on the handles. Within, the walls are painted and the floor carries nine concentric hoops and one broad hoop; outside there are three lines flanked by broad bands.

EPG. Cf. *Fortetsa* pl. 5, 74 and 90; and like these EPG examples ours is plain beneath. An example from Kourtes, *Ann. x-xii. 560*, fig. 617, is later.

11. One-handed cup (PLATE 36). H. 0.059. Lip not everted. A broad strap handle. Matt black paint in and out. Flat base.

? MPG. See **V. 20**.

12. One-handed cup (PLATE 36). H. 0.048. Lip not everted. Thick strap handle. Matt black paint in and out. Flat base.

? MPG. See **V. 20**.

13. One-handed cup (PLATE 36). H. 0.071. Lip not everted. Strap handle. Dipped fore and aft in matt black paint. Flat base.

? MPG. See **V. 20**.

14. One-handed cup with foot (PLATE 36). H. 0.079-84. Handle circular in section with a stripe down it. Painted

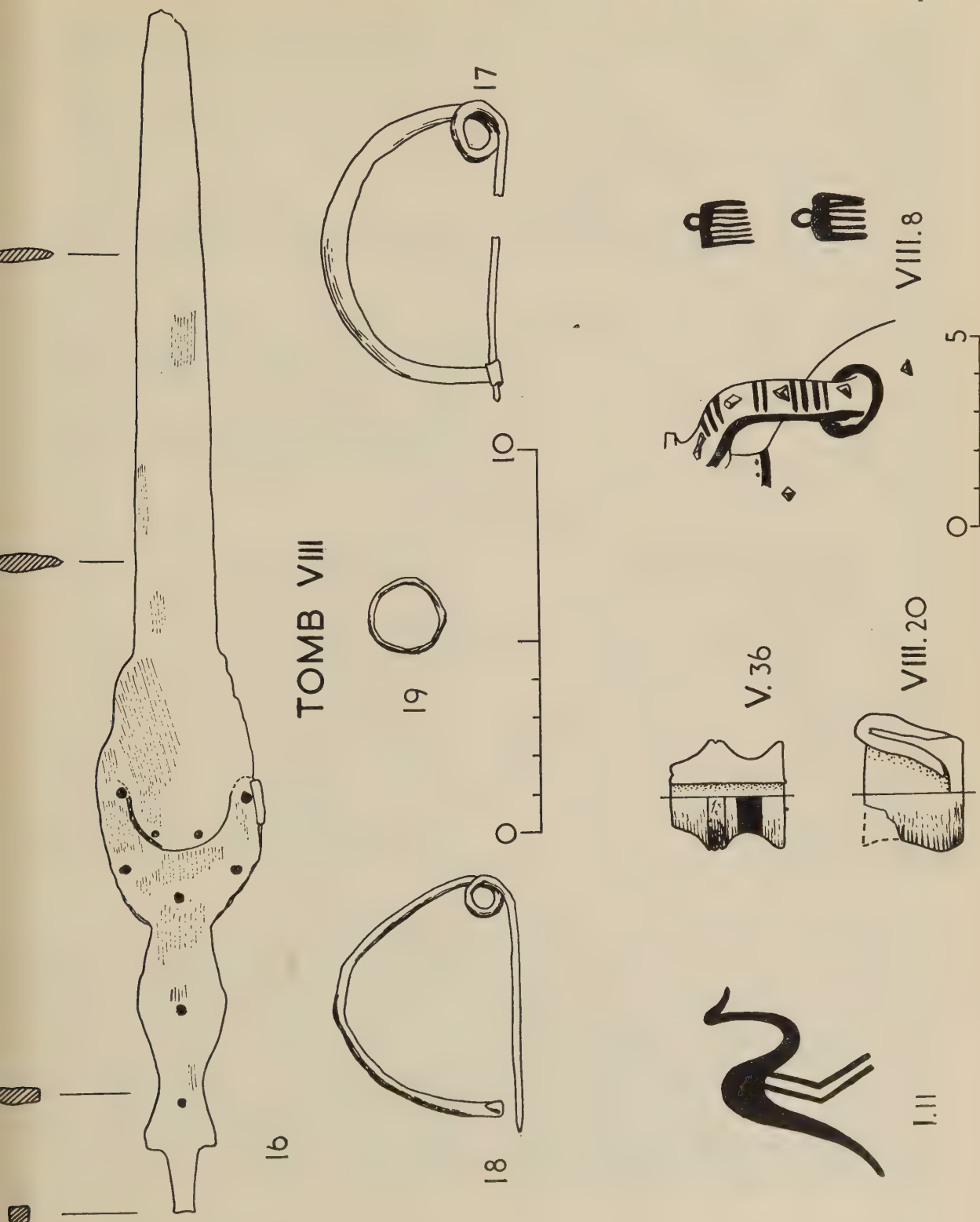


FIG. 9. SMALL FINDS AND DETAILS

bands at the lip, in and out, and at the level of the handle base, with a wavy line above. Slightly hollowed foot.

EPG. Cf. *Fortetsa* 166 Type A.

15. Amphora with belly handles (PLATE 33, FIG. 7). H. 0.272. Bars at the rim; a broad band on the lip, in and out. Seven stripes on the neck. For the shoulder decoration see FIG. 7. Below it two broad bands flanked by thin lines. The handles are painted; between them a double wavy line and two lines below. A line at the base which is slightly hollowed.

EPG. Another fine example of this type of decoration (cf. **V. 1**). The shape is very close to the imported vase at *Fortetsa* (pl. 13, 154) of the sort which may have inspired it. On this shape at Knossos see *PGP* 35, 246, 248. The decoration between the handles follows the Bronze Age and Attic PG usage on this shape. See below, p. 144.

16. Iron sword (PLATE 39, FIG. 9). L. 0.31. One bronze rivet remains in position on the hilt; it projects on either side and is 0.027 long. On the hilt and blade are traces of a wooden scabbard and hilt plates.

17. Bronze fibula (PLATE 39, FIG. 9). W. 0.089. A well-flattened catch for the point of the pin. Circular section to the arch.

The simple bow type is the earliest Iron Age form; cf. *PGP* 308 f., *Fortetsa* 195 f. Type 2.

18. Bronze fibula (PLATE 39, FIG. 9). W. 0.068. As **17**, but less robust. The hook for the point of the pin is slightly flattened. Circular section to the arch.

19. Bronze ring (PLATE 39, FIG. 9). Diam. 0.02. Circular section. From the dromos fill.

20. Miniature one-handed cup (FIG. 9). H. 0.03. Unpainted. Half is missing.

Probably Geometric.

Vase **A**. Amphora (PLATE 32). H. 0.485. Bands at lip, collar, three below handles, two on belly, one at the base. On the shoulder simple scrolls. The handles slashed, so as to appear twisted.

MPG. See **I. 1**.

Vase **B**. Neck-amphora (PLATE 32). H. 0.65. Moulded neck and foot, both painted. Criss-cross patterns on the handles. Bands at the collar, and three and two on the belly. Below the handles a broad band flanked by two thin. On the shoulder two groups of ten concentric circles.

? MPG. The thick and thin lines on the body follow the E-MPG fashion for neck-amphorae (contrast **I. 3, 4**) as does the rounded lip. The base ring appears at *Fortetsa* on this shape only in LPG (pl. 19, 279).

ANALYSIS OF FINDS

Amphorae: with belly handles, **V. 1**; **VIII. 15**.

neck-amphorae, **I. 3-5**; Vase **B**.

others, **I. 1, 2**; **IV. 1**; **VI. 1**; **VIII. 1, 2**; Vase **A**.

Kraters: stand, **I. 11**.

bell kraters, **I. 8, 9**; **III. 1**.

krateriskoi, **I. 12-38**; **IV. 2, 3**; **V. 2, 3**; **VI. 2, 3**; **VIII. 3**.

others, **I. 6, 7**.

Pyxides, **I. 10, 56-58**.

Stirrup vases, **I. 39**; **II. 1**; **III. 2, 3**; **IV. 4**; **V. 4, 5**; **VI. 4**; **VII. 1**; **VIII. 4-7**.

Oenochoae and jugs, **I. 40-43**; **III. 4**; **V. 6-10**.

One-handed cups, **I. 44-55**; **V. 16-22**; **VIII. 11-14, 20** (miniature).

Drinking jars, **II. 2, 3**; **IV. 5, 6**; **V. 12**; **VIII. 9**.

Skyphoi, **III. 5**; **V. 15**.

Hydriae, **V. 11**; **VIII. 8**.

Kalathoi, **V. 13, 14**.

Other shapes: carinated jar, **I. 59**; small pithos, **V. 23**; straight-sided jar, **V. 24**; askos, **V. 25**; coarse tripod, **V. 26**; circular tray, **VIII. 10**.

Clay beads, **I. 13** (three); **V. 35** (about 250).

Clay whorl, **V. 36**.

Faience beads, **V. 37**.

Iron: spear heads, **I. 60**; **IV. 8**; **V. 28**.

pins, **III. 6**; **IV. 7**; **V. 27** (two).

swords, **IV. 9**; **VIII. 16**.

Bronze: 'belt', **I. 61**.

armlets, **II. 4**; **V. 29**.

fibulae, **II. 5**; **VIII. 17, 18**.

rings, **I. 62** (four or five, or two double); **IV. 10**; **VI. 5**; **VIII. 19**.

Other materials: gold rings, **V. 30** (four); silver rings, **V. 31** (two); amethyst bead, **V. 32**; rock crystal, **V. 33**; glass bezel, **V. 34**; whetstone, **II. 6**.

THE CEMETERY AND BURIALS

It is unlikely that the graves investigated in such a small area represent more than a minor part of the whole cemetery, and the near-by roads and buildings may well conceal or have destroyed others. But it is perhaps equally unlikely that the evidence of other graves would alter the conclusion that can be drawn from the eight so far discovered: that we are dealing with a cemetery which is unusually short-lived, at least by Knossian standards. The other main groups of Iron Age graves include burials from Sub-Minoan to Orientalizing in date. Such are the graves in Hogarth's Cemetery 1.5 kilometres south-east of A. Ioannis, at Khaniale Tekke 800 metres to the south, and of the *Fortetsa* Cemetery, a further kilometre to the south.⁶

⁶ An outlying PG-Geometric tomb at Ambelakia, 1 km. west of A. Ioannis, was dug by Alexiou in 1949-50 and published in *KCh* iv (1950) 294 ff.; and note the isolated

Geometric tomb at A. Paraskioi, near Heraklion, *AE* 1945-7, 47 ff.

The A. Ioannis graves contain burials from Sub-Minoan (or Early Protogeometric) to Late Protogeometric, from about 1000 B.C. to 850 B.C. by Brock's chronology, with only one vase which seems to look forward to the Protogeometric B style, and nothing Geometric. It might then have served a community which at about 850 B.C. either disappeared completely or abandoned its usual burial-place. Either might be true if the cemetery were indeed used only by some small local settlement. The scattered cemeteries of this period around Knossos have led some to the conclusion that there were many such small settlements,⁷ but a great deal hinges on whether the tombs were themselves constructed in the Iron Age; for if many of them are Bronze Age tombs, cleared and reused, the scattered cemeteries are no reflection of the distribution of the Iron Age population, but simply an indication of the distance the folk were prepared to travel from the main centre of occupation at Knossos⁸ for interments in ready-made cemeteries.

This is a problem which may be briefly reviewed here, but first it should be remarked that in their construction the A. Ioannis tombs differ in no way from those of other Iron Age cemeteries at Knossos. The overlapping of two groups of graves gives evidence for their order of construction: VI-II-IV, and V-III. The earliest vases in the first group seem to reflect this order chronologically; those in the second group seem not to. Brock has summarized clearly the evidence for and against the belief that the tombs are Bronze Age constructions, and decides that tombs were still being cut in the Protogeometric period, but not after it.⁹ I repeat his arguments briefly here because a slight shift of emphasis, as well as consideration of another factor, may lead to a different conclusion. *For* is the close similarity of construction to those of L.M. III date, the association of two larnakes with Fortetsa tombs, the untouched L.M. tombs in Hogarth's cemetery; add that we know that some Minoan tombs were cleared and reused (the Khaniale Tekke tholos).¹⁰ These are cogent arguments. *Against* is the absence of Minoan material within the tombs; but the complete clearance of burials from an intact tomb would have been an easy matter, and we need not expect any oversights, except perhaps of things like beads. A decisive point, to my mind, is the extreme incongruity involved if a people who habitually cremated their dead were also digging for them tombs naturally designed for inhumations. In the rest of Greece cist graves or earth-cut tombs generally served for cremation burials in this period. There may be some of this type yet to be found at Knossos, but with such large (though often scattered) burial-places available already the people may have preferred to take advantage of the hospitality thus readily afforded for their dead. Reuse of L.M. graves elsewhere in Crete is attested; also the building of new tombs in part dependent on Bronze Age models and often intended for inhumations.¹¹ There are, however, many strong regional peculiarities in Iron Age Crete, not only in matters of burial, and each major site or district is best considered in isolation. Despite the wealth of material from Iron Age tombs at Knossos, there is still much to be learned about the funeral customs, the history of the cemeteries themselves, and, by now more important, the occupation sites.

The burials at A. Ioannis may be summarized as follows:

Tomb I. One inhumation prior to several cremations (there are eight amphorae and kraters

⁷ Cf. *Fortetsa* 1, n. 2.

⁸ Apparently this was mainly to the north and west of the Palace.

⁹ *Fortetsa* 4 f.

¹⁰ R. W. Hutchinson and J. Boardman in *BSA* xlix (1954) 215 ff. The material from the third Geometric tomb at Khaniale Tekke has now been identified, and I hope to publish this shortly, with supplementary information which is now available about the other tombs. It might be argued

that Gypsades Tomb VII (*BSA* 53-54 (1958-9) 205 ff.) was a Minoan one reused for Sub-Minoan burial(s). Another reused tomb was dug in 1959, at A. Ioannis, east of our cemetery.

¹¹ J. Wiesner, *Grab und Jenseits* 93-95; J. D. S. Pendlebury, *Archaeology of Crete* 306-8, 319. Platon discusses them in *AE* 1945-7, 70-72 apropos of an example near Heraklion, with Knossian vases.

which might have served as cremation urns). The pottery is mainly MPG-LPG, but there is one PGB krater.

Tomb II. One inhumation, and EPG vases which need have no relation to it.

Tomb III. One EPG cremation.

Tomb IV. One ? MPG cremation, disturbed when uncremated bones were consigned to a side-niche. Remains of a meal on the floor.

Tomb V. Two E-MPG cremations.

Tomb VI. A SM-EPG deposit of vases in the company of the confused skeletons of three adults and a baby.

Tomb VII. One(?) SM-EPG inhumation (only one vase and bones).

Tomb VIII. A niche in the side of a dromos with at least one EPG and two MPG cremations, followed by one inhumation.

The inhumations in Tombs I, II, VII, and VIII are noteworthy, as none were recorded at Fortetsa.¹² They apparently occur at least as late as MPG. In the rest of Crete they are far more common. Unfortunately it is not clear in what circumstances the uncremated bones were put in the niche in Tomb IV *after* the cremation burial, and the skeletons were deposited in Tomb VI, but obviously Protogeometric inhumations somewhere are involved. The community or families using these tombs may have had somewhat different burial traditions from those of the families using the Fortetsa cemetery in this period. The soil around Knossos has sometimes proved particularly unfavourable for the preservation of bones,¹³ and it may be that there are more Iron Age inhumations than have been with certainty identified.

The finds have a little interest in their quality as grave furniture. The practice of stopping the mouth of the cremation amphora with a stirrup vase may be noted in Tomb VIII, and may have occurred elsewhere. In Tomb IV a krateriskos is used. Perhaps a stirrup vase was as necessary a part of the tomb furniture for early burials as the aryballos or lekythos was later. The kraters, jugs, and many small one-handled cups and krateriskoi which are found especially in the M-LPG tombs suggest drinking parties which could hardly have been intended to be enjoyed at any time by the dead, and may betoken the final toast or libation of the mourners. The preparations for a meal at the time of the consignment of unburnt bones to a niche in Tomb IV admit no ready explanation.

Personal belongings or clothes are less well represented in the graves; there were iron swords in Tombs IV and VIII and spear heads in Tombs I, IV, and V; pairs of iron pins and bronze fibulae in Tombs V and VIII, finger rings in Tombs I, IV, V, VI, VIII, with a notable collection of clay beads in Tomb V; the elegant little hydria **VIII. 8** might also be mentioned here, for it is no ordinary domestic vessel (see below).

THE POTTERY

The earliest vases carry typical Sub-Minoan decoration. Such are the stirrup vases **III. 2**, **VII. 1**, and **VIII. 6**, with curvilinear triangles on their shoulders; and here on the standard post-Minoan shape, with a spike on the knob, air hole and foot, which continues through Protogeometric.¹⁴ Other vases may be as early, but several can be closely associated with EPG groups at Fortetsa. The two belly-handled amphorae, **V. 1** and **VIII. 15**, pose a problem, or at least illustrate the mixture of two traditions at work in Knossian Protogeometric, for their shapes are supposedly derived from Attic Protogeometric (though they have Bronze Age fore-

¹² Cf. *Fortetsa* 3 f., 216 f. Another PG inhumation is reported, near Isopata, in *Arch. Reports for 1958* 21.

¹³ Cf. D. G. Hogarth, *BSA* vi (1899-1900) 83 f.

¹⁴ Pendlebury, *op. cit.* 319, mentions one in a Geometric grave excavated by him at A. Giorgiou Papoura. At Knossos the shape does not survive into PGB (*PGP* 238 f.).

runners), while their decoration is still entirely in the Bronze Age tradition which at Knossos remained unbroken.¹⁵ The shape matches Attic vases of perhaps the mid-ninth century,¹⁶ ovoid rather than globular, but lacks the foot. Other Knossian examples with belly-handles derive their outlines directly from contemporary neck-amphorae.¹⁷ The A. Ioannis vases are much closer to the Attic in outline and general decoration (e.g. the wavy lines in the handle zone of **VIII. 15**), though not in the elements of their decoration, and the clay-ground appearance with striped (not all-black) necks is more uncompromising than the Attic. These vases afford valuable chronological links with the series of mainland Protogeometric shapes.

The 'belly-amphorae' (**I. 1**, **IV. 1**, **VI. 1**, **VIII. 1, 2**, Vase **A**) are barely represented at Fortetsa. It may be that they belong to the Middle Protogeometric phase, which is not very clearly defined in the material from Fortetsa.¹⁸ With this possibility in mind we might add the hydria **VIII. 8**, whose decoration looks earlier than that of the LPG examples at Fortetsa: the straight-lipped cups, which are earlier than the LPG types with everted rims (almost the only sort met at Fortetsa); and perhaps pieces like Vase **B** and **I. 12**. The decoration of the vases shows a fair mixture of the Sub-Minoan and true Protogeometric styles, but in general is more closely related to the earlier. The 'belly-amphorae' seem to hark back to Late Bronze Age forms and decoration. Brock's MPG is closer to the later. I am not sure how far this intermediate phase deserves a separate title, and it might be simpler to class together on one side Brock's EPG and the A. Ioannis vases mentioned above, and on the other Brock's MPG and LPG; the first still looking back but receptive of new influences; the second committed to the new style.

The decoration of the hydria **VIII. 8** deserves a special note. The devices painted on the shoulder are best interpreted as representations of combs. We have to look far afield for combs of this type with ring handles,¹⁹ but the Bronze Age Greek combs in ivory often have a circular device of some sort at the centre of, and projecting above, the flat handle.²⁰ A rather similar device appears on a LPG stirrup vase at Fortetsa,²¹ and on a seventh-century anthropoid vase from Afrati²² combs are found hanging from the necklet or tresses. If a tripod were intended, I think we might expect greater precision in the number of legs and disposition of handles. Combs might be considered a rather sophisticated choice for one of the earliest representations of an artefact in what seems a somewhat austere period in Crete. But there are the beads, and gold and silver rings in the A. Ioannis graves, and the hydria itself carries other, equally surprising, decorative features. Along the handles, round the collar of the vase, and on its belly are irregular holes into which there had probably once been set coloured stones or the like. What the stones or filling may have been, and whether they had to survive the firing, I cannot say. There is no question here of the sort of impressed decoration which relied for its effect on the shadows cast in a close-set pattern of impressed triangles;²³ the holes are too widely spaced and irregular in outline to be effective in this manner. Their irregularity suggests that individual stones were to be set in them, for a paste filling would more naturally be found in a regularly

¹⁵ It is still possible that in Crete the tradition for the shape had survived, although it was to adjust itself to Attic practice. The earlier Cretan form might be as *Fortetsa* pl. 7, 70 and 84, close in outline to the SM hydria from Liliana, *MA* xiv. 613 f., fig. 110 (A. Furumark, *OpArch* iii. 230; unless this vase is like *Boll. d'Arte* 1955, 155, fig. 28, with four handles).
¹⁶ Cf. *PGP* pl. 5.

¹⁷ *Fortetsa* 146, Type II A; but compare also the proportions of the vases cited in n. 15.
¹⁸ *Fortetsa* 143.

¹⁹ e.g. G. Säflund, *La Terramare* pls. 55, 12-13; 64.

²⁰ e.g. *PM* iv. 1005 f., figs. 955-6; *Hesperia* xxiv (1955) 215, fig. 8, 31.

²¹ No. 288, pl. 143 and Pattern 17au. A stirrup vase from Kourtes, *AJA* v (1901) pl. 8, 2, has a similar device with a triangular handle in the same place, beneath the spout. Compare the fork and tripod, *Fortetsa* Patterns 17av-ax.

²² *Ann.* x-xii. 245, fig. 291 (Tomb R).

²³ As often on relief pithoi. Unusual on decorated vases, but compare the handle and neck of the Rhodian oenochoe, *Clara Rhodos* iii. 104, fig. 98; the East Greek fragments from Troy, H. Schmidt, *Trojanischer Altertümer* 180, nos. 3651, 3653; a fragment from Kamiros in Oxford (1935. 854); and cf. now *Acta Arch.* xxviii (1957) (*Exochi*) 149.

impressed cavity. This type of decoration seems otherwise unknown in Protogeometric or Geometric Greece, but there are antecedents of a sort in Crete in the glass inlays which appear on a L.M. III clay head from A. Triada²⁴ and on an unpublished fragment of a L.M. III stirrup vase from Knossos, now in Oxford (1938. 510), and in the irregular impressions found on a primitive figurine from the L.M. III 'Shrine of the Double Axes' at Knossos.²⁵

Another individually interesting vase is the standed crater **I. 11**. The alternating semicircles and birds are each met once on PGB vases at Fortetsa, but if the krater is of the same date, it is stylistically the latest datable vase found in the cemetery.

THE OTHER FINDS

Iron pins were found in several tombs at Fortetsa, but unfortunately none were well enough preserved to be illustrated.²⁶ Those found in the A. Ioannis graves are now missing, but a photograph taken at the time of the excavation (PLATE 39) shows their outlines fairly well, and this is useful, as no other Protogeometric examples seem to have been found in Crete.²⁷ Two types appear: one with a small flat head and a small biconical member a little way down the shaft; the other with a small flat head and a globe on the shaft just below it. The globe seems not to have been of bronze as on many Protogeometric iron pins, but neither is any bronze mentioned in the description of the Fortetsa pins. The biconical member and its relatively low placing are Late Protogeometric features in mainland Greece, but appropriate in their context here.

Iron swords, as **VIII. 16**, are common in Iron Age Crete, but not in the Protogeometric period. A similar short sword was found together with an iron spear head in an EPG tomb at Fortetsa;²⁸ later iron swords in Crete have generally broader blades, and longer examples become more common. The Protogeometric examples, barely 0.30 long, were poor weapons.

The silver rings are remarkable, as the metal is not otherwise attested in a Protogeometric context except in the silvered bronze fibula from Assarlik.²⁹ The bronze fibulae and rings in the A. Ioannis graves are normal for this period.

The remarkable number of clay beads (about 250) which were found in Tomb V are of a type already well known in Iron Age Crete. PLATE 39 and FIG. 10 illustrate all the main patterns of incised decoration. This is usually disposed in three zones, the central occupied by circles or dashes; two zones occur on one example. A few are incised like melon-beads with circles or dots between the vertical incisions. Another type has two wavy dotted lines, crossing, and enclosing circles. Most are spheroids, but some are biconical in varying degrees, and the one illustrated bottom left in PLATE 39 could be more conventionally described as a spindle whorl. The A. Ioannis examples are, of course, all Protogeometric. At Fortetsa few appeared with Sub-Minoan and EPG burials.³⁰ They have been found on several other Cretan sites,³¹ but in general the examples from Geometric contexts show some variation in shape and decoration from the ordinary Protogeometric beads, which form a most distinctive group. Exactly comparable specimens have been

²⁴ *Ann.* x-xii. 613, fig. 646; *N.S.* iii-v. 57, fig. 47; C. Zervos, *L'Art de la Crète* fig. 747. And cf. *Ausonia* vi (1911) 110, fig. 1 (Phaistos).

²⁵ *PM* i. 52 fig. 14. And compare the decoration of the Geometric figurine from Anavlochos, *BCH* lv (1931) 388, fig. 26. There is a similarly decorated clay bull from the Psychro Cave (Heraklion 3150). On *Fortetsa* no. 360, a PGB vase, the compass holes in the circles were filled with small knobs of clay.

²⁶ *Fortetsa* 195.

²⁷ *PGP* 309 f. Cf. P. Jacobsthal, *Greek Pins* 2 f.

²⁸ *Fortetsa* 201, pl. 171, 192.

²⁹ Cf. *PGP* 308. Gold rings are comparatively common, *ibid.* 310 f.

³⁰ *Fortetsa* 207.

³¹ Cf. *Vrokastro* 121 f., fig. 73; *BCH* lv (1931) 381, fig. 18; 384 f. (Anavlochos); *BSA* vi (1899-1900) 113 (Dictaeon Cave), 83 (Protogeometric tomb near Knossos).

found in Protogeometric graves in Athens,³² but generally only in ones and twos, and therefore perhaps more accurately described as whorls.

Beads or whorls with this style of incised and impressed decoration seem thus to be characteristic of the Protogeometric period in Attica and at Knossos, and it may be profitable to investigate their origins. They seem to have no Late Bronze Age forerunners in the Aegean, or at least none have been certainly identified. One is published with material from graves at Mavro Spelio,³³ near Knossos, but it is not mentioned in the description of the graves, and there were Iron Age burials above some of the tombs (notably IV and VII). Some beads of this type are in Rome,³⁴ and alleged to be from the First Palace at Phaistos, but they seem so far out of their expected context that this provenance must be suspect. There is one from a Geometric tomb at Dreros, and a small vessel decorated in the same manner from Petrokephali near Phaistos.³⁵ There is no hint of them on the Greek mainland at the end of the Late Bronze Age.



FIG. 10. CLAY BEADS FROM TOMB V (V. 35)

The earliest Cretan examples so far found, at Fortetsa, may be earlier than the Attic ones, but it was in Attica that the scheme of decoration was extended to other objects: idols, cups, and other containers.³⁶ If this means that they were more at home in Attica than in Crete, they afford evidence for very early influence of Attic Protogeometric fashions in the island. Their presence in either Attica or Crete still requires explanation. Some have associated them with the incised decoration found on north Balkan and central European clay objects which are perhaps of about this date,³⁷ but the comparisons are inadequate for the argument. Far closer in technique and decoration are the incised whorls or buttons which have been found in considerable numbers on Anatolian Bronze Age sites, from Troy to Tarsus,³⁸ where too they have a long history, back to the third millennium. These are, however, clearly whorls or buttons and not beads,³⁹ with broader recesses at one end of their perforation, for a knot. If the east is indeed the source of

³² Cf. *Kerameikos* iv. 19 f., pl. 32; v. 1, 23, pl. 157; and from the graves excavated by I. Papademetriou at Nea Ionia. Some of the Attic examples are about three times the size of the Cretan, and the decoration occurs also on whorls of a different shape. Other examples outside Crete may be *Lindos* i, pl. 10, 152-3; *EADelos* xviii, pl. 83, 704-3.

³³ *BSA* xxviii (1926-7) pl. 18, 27.

³⁴ M. Borda, *Arte cretese-micenea nel Museo Pigorini di Roma* 39, no. 2, pl. 46, 8, &c.

³⁵ Dreros, *Mirabello-Nécropoles* pl. 42 D. 71; and cf. *PAE*

1930. 97, fig. 9 (Amnisos). Phaistos, *Ann.* xxxv-xxxvi. 358, fig. 216e.

³⁶ Cf. *Kerameikos* iv. 19 f., pls. 29-32; v. 1, 139 f., n. 106, for references to other examples from Athens and Eleusis in Protogeometric and Early Geometric contexts.

³⁷ Notably on the so-called Lausitz pottery; see V. Milojević, *AA* 1948-9, 30 f.

³⁸ For examples and references see H. Goldman, *Tarsus* ii. 328 ff.

³⁹ Cf. C. W. Blegen and others, *Troy* iii. 32 f.

inspiration for this style of decoration on these small objects, it is not easy to see exactly how it was adopted in Attica or Crete at a time when communication of ideas and motifs was still slight between one part of Greece and another, let alone from far overseas. A northern route from the Troad might be an answer, or perhaps evidence for their use at the end of the Bronze Age in Greece may be forthcoming. Any further light on their origins and distribution could well help to illumine a particularly dark corner of Greek proto-history.

Faience beads like **V. 37** have been found in Protogeometric and later Cretan tombs.⁴⁰ They were presumably made in Egypt, and their appearance in Protogeometric tombs gives another glimpse of overseas relations which might hardly be suspected so early in the Iron Age.

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⁴⁰ *Ann* x-xii. 476; *Fortetsa* 208. Hogarth mentions hundreds of flat circular blue paste beads in a tomb whose

pottery seems largely Protogeometric (*BSA* vi (1899-1900) 84, Tomb 6).

FOUR WHITE LEKYTHOI IN THE NATIONAL MUSEUM OF ATHENS¹

(PLATES 40-41)

THE two white lekythoi illustrated in PLATE 40 *a-b* and FIGS. 1-2 were found together in a basement of the National Museum in Athens. The provenience is unknown.² They are restored, and have necks, mouths, and handles belonging to other lekythoi. The height of the ancient parts

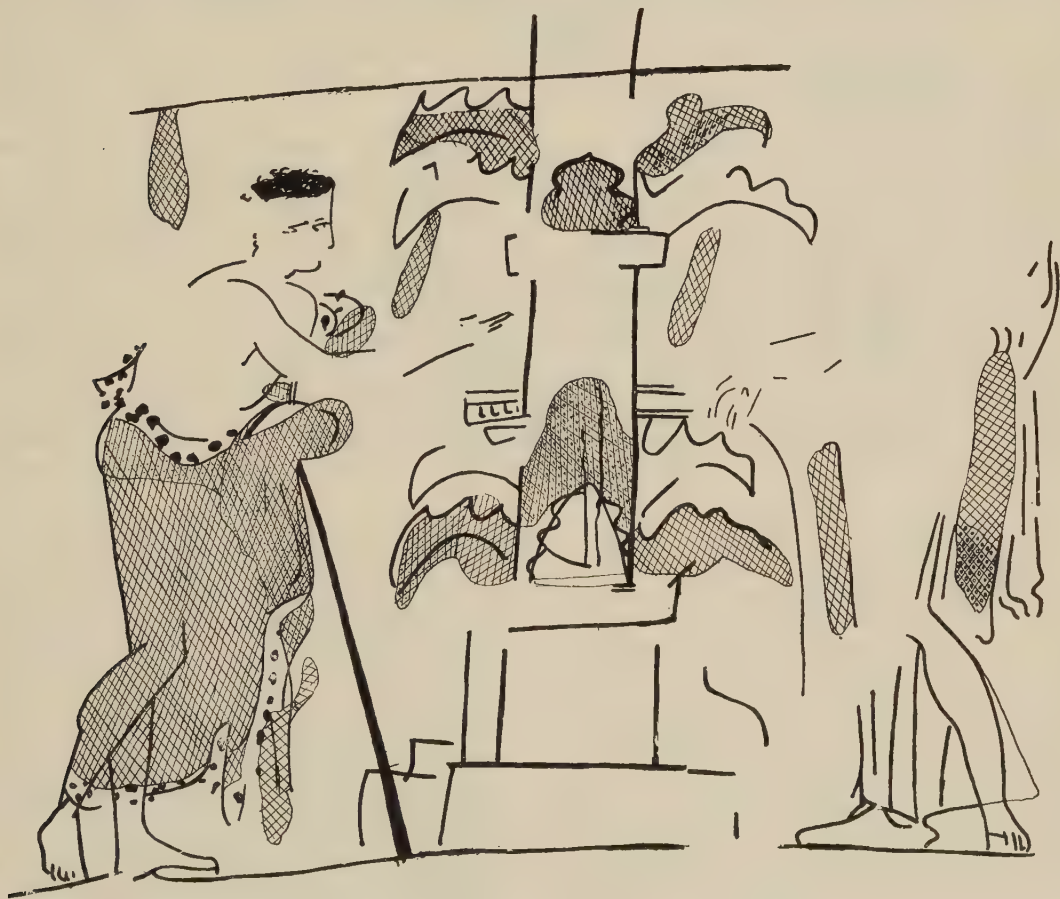


FIG. 1. ATHENS 19272

is 0.33 m. The outlines of the drawing are a mixture of matt red and brown; the added colours are mauve, green, and light brown. No vent-hole is visible in either of them.

The subject of the composition on no. 19272 (PLATE 40 *a* and FIG. 1) is a visit to the grave.

¹ I am deeply grateful to Sir John Beazley for reading the manuscript and for his criticism. To the British Council I am grateful for the scholarship which enabled me to finish this article in Oxford. To Mrs. Karouzou I am indebted for permission to publish the lekythoi, to Mr.

Zapheiropoulos for discussing aspects of this article in its early stage, and to Mr. Hermann for permission to consult the Photographic Department of the German Archaeological Institute in Athens.

² They probably come from confiscation.

There is a grave stele in the middle, projecting on to the shoulder of the vase;³ it rests on a step and has three shafts,⁴ one rising from the other. The lowest shaft is the broadest, the middle one the highest. The two lower shafts are crowned by a plinth. From each plinth two tiers of acanthus leaves rise, in outline, or painted mauve, green, or light brown. These enrich the stele, diminish the excessive elevation, and add balance. From the lowest leaves of the upper acanthus group two woollen sashes hang, the left-hand one green, the other mauve. A third sash, green, hangs from the upper border band to left of the stele. Behind the stele, a trapeza,⁵ resting on a couple of steps, gives more stability to the general aspect of the monument.

The figure to right of the stele, though restored in modern times as a bearded man, is obviously a woman. She wears a long chiton, and a himation decorated with a pair of broad, almost vertical mauve bands. The himation is held by the left hand. The right forearm is extended, with the right hand almost touching the end of the trapeza. The upper part of the figure is missing, and, that being so, there might be a doubt whether this figure is a mourner or the mourned.

To left of the stele there is a youth. If the woman is the dead, this must be a kinsman visiting the grave. He wears a himation which is mauve and green, with a green pattern on the borders. The lower part of the body is in profile, with the right leg set back. The upper part of the body, in three-quarter view, leans forward on a stick. His eyes try to reach and focus something beyond the stele, and his right arm and hand are turned in the same direction.

The stele in the middle of the second lekythos, no. 19273 (PLATE 40 *b*, FIG. 2), is of the same type as in no. 19272. The subject is again a visit to the grave. A youth in travelling costume, doubtless the dead, stands to the right of the stele. He wears a short chiton decorated with a pair of mauve bands, almost vertical, and a border patterned in green. His chlamys is mauve and green at the neck, and has dark lines for the folds behind him. On his head he wears a pilos,⁶ on his feet endromides. His right arm, in a succession of gradual curves, follows the

³ For stelai towering over the shoulder of the vase compare the following white lekythoi: Athens 1825 (Riezler pl. 11; *ARV* 466, 12); Brussels A 1022 (*CV* Jb, pl. 2, 2; *ARV* 829, 12); Athens 1936 (Riezler pl. 77; *CV* Jd, pl. 11, 6 and pl. 13, 1-3; *ARV* 816, 44); Copenhagen 7090 (*CV* iii J, pl. 171, *ib*). Cf. also the marble lekythos in the Piraeus Museum: E 77, *AE* 1953-4, 237 ff., pl. 1.

⁴ A stele consisting of three shafts occurs on the following white lekythoi: Toronto 381 (Robinson and Harcum, *Catalogue of Vases in the Royal Ontario Museum* pl. 66); Copenhagen 7090 (*CV* iii J, pl. 171, *b* (with four acanthus groups)); Berkeley, University of California 8/3310 (*CV* pl. 62, *1d*). A grave stele consisting of two shafts: Athens 1936 (Riezler pl. 77 and p. 3, 3; *CV* Jd, pl. 11, 6 and pl. 13, 1-3; *ARV* 816, 44); Athens (photograph of the German Archaeological Institute in Athens, varia 602). A stele consisting of four shafts occurs on the white lekythos in Mannheim, *CV* pl. 35, 1-3, pl. 36, 5 and p. 45, fig. 14 (with four acanthus groups).

⁵ For similar examples of trapezai cf. Karouzou in *ADelt* viii (1923) 122, fig. 2.

⁶ The many figures of travellers on white lekythoi, as a rule, either wear a petasos or are bareheaded. It is only after 430 B.C. that the pilos becomes a regular attribute of the traveller on white lekythoi. A few examples: Oxford 546 (*JHS* xxv (1905) 74 f.; *ARV* 815, 21; by the Quadrate Painter); New York 06.1021.133 (Fairbanks ii, pl. 11, 2;

ARV 815, 23; by the Quadrate Painter); Cambridge 141 (*CV* pl. 31, 5 and p. 33; *ARV* 829, 20; by the Triglyph Painter); Warsaw (ex Czartoryski 179; *CV* pl. 44, 2; *ARV* 829, 7; by the Triglyph Painter); once Athens, Fauvel (Stackelberg, *Gräber der Hellenen* pl. 46, 1; *ARV* 815, 20; by the Quadrate Painter); Athens 1796 (Dumont and Chaplain, *Les Céramiques de la Grèce Propre* pl. 29; Heinemann, *Thanatos* pl. 10; *ARV* 829, 6; by the Triglyph Painter).

It must here be pointed out that this type of hat is sometimes called a 'helmet' (Lullies, *Eine Sammlung griechischer Kleinkunst* 37, no. 82, pl. 43) and the traveller who wears it is called a warrior. However, it is the same kind of hat as that worn by Hermes (Athens 1940: *AJA* xi (1907) 27; Riezler pl. 47; *ARV* 659, 7; by the Phiale Painter. Munich 2797; Buschor, *Attische Lekythen der Parthenonzeit* pl. 1, 2 and pl. 2; Beazley and Ashmole, *Greek Sculpture and Painting* fig. 112; Beazley, *Attic White Lekythoi* pl. 1, 2; Buschor, *Grab eines Mädchens* 12 f.; *ARV* 658, 101; by the Phiale Painter); here a helmet is not expected. This hat, often worn by youths carrying a spear or two spears, or by Hermes himself, should be thought of as an alternative to the petasos. Nevertheless we do have metal helmets in the form of a pilos (Rumpf, *Abhandl. preuß. Akad.* viii (1943) 3 f.); and such a helmet occurs on a white lekythos (Athens 1761: Fairbanks i, pl. 9, 2; Riezler pl. 31; *ARV* 808, 13; by the Thanatos Painter), where it is worn by a warrior. However, on two other white lekythoi (Athens 2011: Dumont and

direction of the drapery folds.⁷ The left arm holds a pair of spears, which, though nonchalantly held, are practically upright, and oppose the direction of the drapery folds and the left leg, thus re-establishing the balance of the figure.

To left of the stele a young woman, a kinswoman, approaches the grave. She wears a thin,



FIG. 2. ATHENS 19273

sleeveless, clinging chiton and a loose himation with a border patterned in green. As she walks, her head slightly inclined, she tries to fix her eyes upon an undetermined point beyond the stele.

Chaplain, *op. cit.* pl. 36; *CVJd*, pl. 14, 4; *ARV* 827, 95; by the Reed Painter; and Louvre S 1161: *Mon. Gr.* 1882-4, pl. 3; Riezler pl. 96; *ARV* 827, 107; by the Reed Painter) the hat worn by the warriors seems to be made of the same soft material as that held by the warrior of the Cairness relief (Diepolder, *Die attischen Grabreliefs* fig. 3; *JHS* xlix (1929) 2 f., figs. 1-2; now in Worcester, Massachusetts); where, as Sir John Beazley pointed out, 'the hand sinks into the hat and presses it out of shape'. In red-figure vase-painting piloi are often worn by male persons—mostly legendary, but also workmen or travellers, as well as warriors.

⁷ The upper part of the youth in Athens 19273 reminds one of the middle figure in Athens 1816 (*ARV* 828, 15, by

the Master of group R), Louvre CA 536 (*ARV* 828, 10, by the same master), Athens 12483 (*ARV* 824, 16, by the Reed Painter), Athens 1767 (*ARV* 823-7 and 965, 28, by the Reed Painter), Louvre S 1161 (*ARV* 827, 107, by the Reed Painter), Louvre MNB 616 (*ARV* 825, 38, by the Reed Painter), Cambridge 141 (*ARV* 829, 20, by the Triglyph Painter), Lugano, von Schoen (Lullies, *op. cit.* pl. 43, no. 82; *ARV* 830, 26; by the Triglyph Painter); also Athens (photograph of the German Archaeological Institute in Athens, varia 968). The attitude of the whole figure is repeated, somewhat altered, in Heidelberg L 40 (Herbig, *Ganymed* 14, fig. 7), New York 09.221.44 (*ARV* 782, 71), Heidelberg L 43 (Herbig, *op. cit.* 15, fig. 9), Leningrad 2665 (*AM li* (1926) pl. 6).

She raises her right arm behind her head, with a *deltos* in the hand. Her left forearm is extended, the hand almost touching the end of a trapeza. To right of the stele, a mauve woollen sash hangs from one of the lower *acanthus* leaves. Traces of a second mauve sash are visible above the youth's right wrist.

The theme of a woman, standing or sitting, and holding a *deltos* or *deltoi*, is not rare on white *lekythoi*. A woman stands in front of a stele holding a *deltos*, or *deltoi*, while the dead is depicted as a departing traveller,⁸ or leans forward on a stick,⁹ or, nude, stands with a *chlamys* hanging over his arm and a sword at his side, and holds a pair of spears (as a traveller?),¹⁰ or is a hoplite ready to depart.¹¹ Or a woman stands with a *deltos* in her hand, while the dead is either another woman wrapped in a mantle and seated at her grave,¹² or a youth in a mantle, with a stick, seated at his grave.¹³ We also find a woman seated at the grave, with a *deltos*, while the dead is a departing traveller standing in front of the stele.¹⁴ Lastly, we have a woman, the dead, holding a *deltos* and standing in front of Charon's barque, which awaits her.¹⁵

Fairbanks suggested that *deltoi* held by women on white *lekythoi* are brought as an offering at the grave, and 'might contain some message for the deceased, an expression of desire for his welfare, or a curse on any who disturbed the grave'.¹⁶ There are a few points to add. The *deltoi* cannot have been offered at the grave for a decorative purpose only. That they contained wishes for the welfare of the dead cannot be either proved or disproved. If they did, one would have to imagine the text on the analogy of the gold foil from Thurii:¹⁷

εὐρήσεις δ' Ἀΐδαο δόμων ἐπ' ἀριστερὰ κρήνην
 τὰρ δ' αὐτῇ λευκὴν ἔστηκυΐαν κυπάρισσον·
 ταύτης τῆς κρήνης μηδὲ σχεδὸν ἐμπελάσειας.
 εὐρήσεις δ' ἑτέραν τῆς Μνημοσύνης ἀπὸ λίμνης
 ψυχρὸν ὕδωρ προρέον· φύλακες δ' ἐπίπροσθεν ἔασιν.
 εἰπεῖν· «Γῆς παῖς εἰμι καὶ Οὐρανοῦ ἀστερόεντος,
 αὐτὰρ ἐμοὶ γένος οὐράνιον· τόδε δ' ἴστε καὶ τοί.
 δίψῃ δ' εἰμ' αὖη καὶ ἀπόλλυμαι· ἀλλὰ δότ' αἶψα
 ψυχρὸν ὕδωρ προρέον τῆς Μνημοσύνης ἀπὸ λίμνης.»
 καὶ τοί σοι δώσουσι πιεῖν θείης ἀπὸ κρήνης
 καὶ τότ' ἔπειτ' ἄλλοισι μεθ' ἡρώεσσιν ἀνάξεις.

Although such an explanation cannot be excluded, wishes of this kind ought to be connected with the cycle of Orphism; and of Orphism we find no traces in the cult of the dead in fifth-century Athens. On one of the *lekythoi*, however, the *deltos* with the written message is seen travelling with the dead in the underworld. For the ancient Greek the upper world and the nether were not shut off from one another. On the contrary, it was always felt that there was continual communication between the two. In the *Nekyia*, for instance, Achilles and Agamemnon

⁸ Louvre MNB 613 (Fairbanks ii, pl. 23, 1); British Museum D 74 (Fairbanks, op. cit. pl. 23, 2); Athens 14522 (*ADelt* 1923, 141, fig. 11); Leningrad 2665 (*AM* 1926, pl. 6).

⁹ Toronto 181 (Robinson and Harcum, op. cit. pl. 66); Athens 15070 (*ARV* 826, 92).

¹⁰ Boston 00.359 (Fairbanks i, pl. 12; Riezler, 22, 2 and 23, 2; Caskey and Beazley i, pl. 28, 60 and fig. 37; Swindler, *Ancient Painting* figs. 334–5; *ARV* 809, 17).

¹¹ Athens 1761 (Fairbanks i, pl. 9, 2; *AJA* 1907, 25 f.; Riezler pl. 31; *ARV* 808, 13).

¹² Athens 1911 (Fairbanks ii, class XIII, 18; *ARV* 824, 18).

¹³ Athens 2008 (*ARV* 824, 17).

¹⁴ Louvre MNB 616 (Fairbanks ii, pl. 22, 2; *ARV* 825, 38); Athens, market (photograph of the German Archaeological Institute in Athens, varia 672).

¹⁵ Athens 1759 (Fairbanks ii, pl. 24, 1; *ADelt* 1923, 120, 1 and 123, 3; *CVJd*, pl. 15, 7–8; *ARV* 823, 1).

¹⁶ Fairbanks ii. 235.

¹⁷ Kern, *Orphicorum Fragmenta* 104 f. The gold foil from Thurii is dated to the end of the fourth century B.C.

wish to be informed about people in life; and in Pindar's fourteenth Olympian Ode (20 ff.) the poet asks that the news of the victory shall be communicated to the dead father of the victor:

Μελαντειχέα νῦν δόμον
Φερσεφόνας ἴθι Ἄ-
χοϊ, πατρὶ κλυτὰν φέροις' ἀγγελίαν
Κλεόδαμον ὄφρ' ἰδοῖς'
υἱὸν εἵπης ὅτι οἱ νέαν
κόλποισι πὰρ εὐδόχοις Πίσας
ἔστεφάνωσε κυδίμων
ἀέθλων πτεροῖσι χαίταν.

Similar communication is implied in Pindar's fifth Pythian (101 ff.):

ἀκούοντί ποι χθονίᾳ φρενί
σφὸν ὄλβον υἱῷ τε κοινὰν χάριν.

And in Sophocles' *Electra* (1066 ff.): χθονία φάμα. Death is thus treated as a journey: compare Plato's *Apology* (40e): εἰ δ' αὖ οἷον ἀποδημῆσαι ἔστιν ὁ θάνατος ἐνθένδε εἰς ἄλλον τόπον; or as a mere change of residence: μετοικεσία. As a result we see the dead treated by the vase-painters as departing travellers. On this evidence it is possible to explain the deltoi on white lekythoi in another way. One may conjecture that the deltos is a symbolic expression of a living person's wish to contact kinsfolk in the underworld through the offices of a person newly deceased. The message or messages thought of as written on them, we may guess, might be something like this: 'Krito wishes to be remembered to Ampharete', or 'Kleoboule misses Kritias', or the like.

Similar messages are spoken of in modern Greek lamentation songs. After the prothesis of the dead and before the exodos, ξόδι, the dead asks everyone whether there are messages, oral or written, or clothes, to be given to him or her to take to people in the underworld:

— 'Ἡρθ' ὁ καιρὸς τοῦ μισεμοῦ κ' ἡ ὥρα τῆς φευγάλας.
Ποιὸς ἔχει λόγον νὰ μοῦ πεῖ καὶ γράμμα νὰ μοῦ δώσει;
Ποιὸς ἔχει ροῦχα στὸ μποξὰ νὰ στείλει 'κὰ στὸν Ἀδῆ;
— 'Εγὼ 'χω λόγον νὰ σοῦ εἰπῶ καὶ γράμμα νὰ σοῦ δώκω.
'Εγὼ 'χω ροῦχα στὸ μποξὰ νὰ πᾶν στὸν Κάτου Κόσμο.¹⁸

The painter of both lekythoi is the Reed Painter.¹⁹ Both, however, clearly stand apart from the average work of the artist. With four other lekythoi—Heidelberg L 41,²⁰ Louvre MNB 616,²¹ Brussels A 124,²² Athens 2001²³—they represent the Reed Painter at his higher level; but although they approach the quality of the lekythoi by the Master of group R,²⁴ they fall short of it.

As to the date of the two vases, conclusions may be precise. The distribution of weight in figures on vases during the years 430–410 B.C., as the development has been analysed by Werner Technau²⁵ and Hermine Speier,²⁶ is characterized by a swing in the body and a projection of

¹⁸ K. Marines, 'Αντίλαλοι ἀπὸ τὸ Χωριό μας (1929) 133.

¹⁹ (According to Sir John Beazley.) For his work cf. S. Papaspyridi-Karouzou, *ADelt* 1923, 117 ff.; Buschor, *Attische Lekythen* 20; V. H. Poulson, *From Ny Carlsberg* i. 189 ff.; Beazley, *Attic White Lekythoi* 24; *ARV* 823–7.

²⁰ Herbig, op. cit. 10 ff., fig. 1.

²¹ Louvre MNB 616 (Fairbanks ii, pl. 22, 2; *ARV* 825, 38).

²² Brussels A124 (*CV* Jb, pl. 2, 1a–b; *ARV* 827, 96).

²³ Athens 2011 (Dumont and Chaplain, op. cit. pl. 36; *ADelt* 1923, 124, 1; *CV* Jd, pl. 14, 4–6; *ARV* 827, 95).

²⁴ *ARV* 827 f.

²⁵ Technau, *Die klassische Figur* 68 ff.

²⁶ *RM* xlvii (1932) 23 ff.

one hip, a tendency which may lead to S-attitudes with unsteady balance necessitating an external support.²⁷ It is also characterized by a strong differentiation in the rendering of the drapery, fluted over the supporting leg, clinging over the free leg. In the female figures on both lekythoi, the calf of the tilted leg is conspicuous under the garments (chiton and himation), there are austere massed folds over the supporting leg, and the figure broadens above the knees. These



FIG. 3. ATHENS, N.M.

figures find good parallels in others of the decade 420–410. To be sure, their movement is somewhat restrained and they do not show the big axial arc of the figures about 410.²⁸ The youth, too, of 19273, compared with the youth of the lekythos in Heidelberg,²⁹ seems to represent an earlier stage in the development of this system: the vertical axis is more erect, and the balance steadier. 19273, therefore, as well as 19272, may be dated shortly after 420 B.C.

Another white lekythos in the National Museum is illustrated in PLATE 41 a and FIG. 3. It was found in a grave near the Academy in Athens. It is intact and the drawing almost perfectly preserved. The height is 0.25 m. Matt dark outlines, mauve and greenish-grey for added colours. No meander above the figures, no decoration on the shoulder. No vent-hole visible.

²⁷ Relief of the Treasurers, Louvre: Binnebössel, *Urkunde-Reliefs* no. 14; *AM* xxxv (1910) pl. 4, 2; *RM* 1932, pl. 10, 3; Süsserott, *Griechische Plastik des IV. Jahrhunderts* pl. 1, 1 (he dates it 409/8, instead of 410/9 as previous writers had done, and gives his reasons (p. 28, n. 5)).

²⁸ *RM* 1932, 43, pl. 11, 1.

²⁹ Herbig, *op. cit.* 13 f., dates it in the years 420 to 410; Neutsch, *Die Welt der Griechen* 58, figs. 43–44, dates the same vase in the middle of the fifth century, which is surely far too early.

The scene is, once more, a visit to the grave. In the middle, a stele of the common broad type rests on two steps. It is decorated with three sashes, one tied at the base, the second round the middle, the third round the top. It is crowned by two mouldings, the lower one painted mauve, the upper decorated with an obscure pattern (egg-and-dart?) in grey. Two rows of acanthus leaves, one row above the other, rise from the upper moulding.

To right of the stele there is a youth, dressed in a himation, with a mournful inclination of the head but not looking at anything definite beyond the stele. His trunk, in three-quarter view, leans back, but is buttressed by a stick partly hidden under the himation. The weight of the body is on the right leg, the other is set back. His arms slant downward, the right arm curving down softly, the left arm resting on the top of the stick.

On the other side of the stele there is a young woman, who wears a very thin sleeveless chiton and a himation with a greyish border, now faded. She sets her left foot on the lower step of the stele and leans forward. Her arms rest lightly on the left thigh and knee, the left forearm overlapping the other. Both youth and woman seem concentrated upon their inner world, and it is difficult to decide which of the two is the visitor, which the dead.

The artist is again the Reed Painter; but in spite of its perfect condition, this lekythos is inferior to the other two. The date, on grounds of the weight-distribution of the figures and by comparison with the relief of the Treasurers (n. 27), might be fixed about 410 B.C.

PLATE 41 and FIG. 4 illustrate another white lekythos in the National Museum, no. 16461. It was found at Koropi, the ancient deme of Kropia. The height (not counting the modern mouth) is 0.37 m. Matt black outlines; black, red, and yellow for added colours. A border of stopped meander above the composition, traces of palmettes on the shoulder. No vent-hole visible.

The subject is, once more, a visit to the grave. In the middle a stele, a bearded man on the left, a young woman on the right. The stele, which is very broad, rests on a step and is crowned with a double moulding and a large reserved palmette,³⁰ on either side of which a big acanthus leaf, drawn in outline, spans the space between the stele and the figures, diminishes the excessive breadth of the stele, and links together the three parts of the composition—the stele and the two figures. The stele was bound with sashes, but they have faded, and all that remains of them is the tags at the ends.

The figure to right of the stele is a woman, a visitor to the grave. Although she faces the stele, she is not looking at it. She is shown in three-quarter view, turned towards the stele and the spectator, but the head and the right leg are in profile. She raises her right arm in front of her face in a gesture of reverent greeting; on her left hand and arm—now faded—she carries a basket with offerings for the grave. One still sees part of a wreath placed in the basket. She wears an ample Doric peplos, which falls softly, and in spite of being rendered in very few lines, suggests stability and freedom of movement.

On the other side of the stele there is a bearded man, the dead. He wears a black himation,

³⁰ Reserved palmettes on stelai occur on the following white lekythoi: Athens 1958 (*AJA* 1907, 21; Fairbanks i. 203; Riezler pl. 17; *CV Jc*, pl. 6, 3–5; *ARV* 467, 2; by the Inscription Painter); Athens 1959 (*AJA* 1907, 22; Riezler pl. 16; Pfuhl, *MuZ* fig. 532; *CV Jc*, pl. 6, 6–7; *ARV* 467, 3; by the Inscription Painter); New York (ex Gallatin) (*CV Gallatin*, pl. 27, 7, 9; *ARV* 468, 8; by the Inscription Painter); Athens 1935 (*JHS* 1899 pl. 2; *ÖJh* 1907, 119; Riezler pl. 23; Pfuhl, op. cit. fig. 534; Swindler, op. cit. pl. 133d; *Attic White Lekythoi* pl. 4, 1; *ARV* 807, 1; by the Bosanquet Painter); Athens 15070 (*ARV* 826, 92; *Adelt*

1923, 122, fig. 2, ξ by the Reed Painter); once Athens, Fauvel (Stackelberg, *Gräber der Hellenen* pl. 44, 1; mentioned in Fairbanks ii. 182, 43). On Athens 16461, however, the reserved palmette is combined with acanthus leaves. A similar combination occurs on a white lekythos once in Athens (Fauvel Collection: Stackelberg, op. cit. pl. 44, 2; mentioned in Fairbanks ii. 186, 54). For a similar combination of palmettes (not reserved) and acanthus leaves in the work of the Triglyph Painter cf. the lekythoi Berlin 2680 (*AZ* 1885, pl. 3; *ARV* 828, 1) and Athens 2038 (Benndorf, *Griechische und sicilische Vasenbilder* pl. 22, 2; *ARV* 829, 24).

like the living person on no. 19273. The diagonal downward direction of both figures, combined with the more or less vertical axes, produces the stillness and insecurity of two dead figures. In this lekythos the Reed Painter repeats, with little modification, schemes which he had used before to represent the dead.³⁸ This might possibly be another sign of lateness. In any case, by over-repeating himself, he may in the end have lost interest in differentiating a dead figure from a living, and may have come to treat both alike.

The dead were not always 'isolated' on white lekythoi. In earlier times the composition was 'based on the upright, the horizontal and the rectangle'.³⁹ Two standing figures were joined to one another by horizontal axes, by eyes looking straight in front of them, sometimes by eyes looking into eyes. Where this intimacy by means of the eyes was lacking, the dead was accepting certain offerings from the living, and this created a closer connexion between the two.⁴⁰ The mournful inclination of the head may have begun as an attempt to stress the inner self of the figures and to lessen their association with each other. In the late work of the Achilles Painter, in the years 440–430 B.C.,⁴¹ there is a slight but unmistakable tendency towards disconnecting the figures, towards isolating the dead. In lekythoi by other artists, painted after 430, this tendency becomes very strong. The compositions are more complex. Oblique axes, marking the main directions of the figures, become the means of expressing withdrawal into self, and isolation, especially in the dead. When there is more than one figure showing withdrawal, the painter often adds a tiny flying figure next to the dead. The gestures, following the fashion of the period, become sinuous, or even spiralling. Sometimes they introduce a dramatic element, in the taste of the period;⁴² or even, again in the taste of the period, a rhetorical element, when they are rendered for their own sake regardless of the inner reality of the figure. The idea of death is now expressed with a pathetic intensity,⁴³ and this often results in the breaking of the classical figure: a phase which coincides with the end of the white lekythos. A stage of expressiveness had been reached in which the white lekythos seemed 'in danger of saying more than was seemly or expedient, and therefore might be allowed to cease'.⁴⁴ In the earlier phases of the lekythos, death was expressed differently: it is thought of as coming μετὰ πολλῆς πρῶτης, οἷον ἐλαίου ρεῦμα ἀποφητὶ ῥέοντος.⁴⁵

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³⁸ Athens 2005 (*ARV* 825, 60 (for the right-hand figure)); Athens 2009 (*ADelt* 1923, 140, 1 and 127, 3; *CV* Jd, pl. 15, 1–2; *ARV* 824, 33 (for the left-hand figure)).

³⁹ *Attic White Lekythoi* 15, 26.

⁴⁰ Himmelmann-Wildschütz, op. cit. 12, n. 9a.

⁴¹ Oxford 1947, 24 (*Annali* 1842, pl. L[o]; *JHS* 1946, 11 f., pl. 4; *ARV* 644, 163; dated 440–430 B.C.).

⁴² For literature and art cf. Webster, *Greek Art and Literature* c. vi.

⁴³ On the sensitiveness of the Master of group R, and the introversion of his figures, cf. Webster, *ibid.* 198. Rumpf (*AJA* 1951, 7 and *Handbuch der Archäologie* iv. 116) sees the works of the Master of group R as good illustrations of the discussion between Sokrates and Parrhasios; on Parrhasios and the Master of group R cf. Karouzou, *AuA* 1956, 73, n. 14.

⁴⁴ *Attic White Lekythoi* 26.

⁴⁵ Plato, *Theaetetus* 144b.

A GEOMETRIC WELL AT KNOSSOS¹

(PLATES 42-47)

THE neighbourhood of the Vlychia stream, a little distance to the south-west of the Palace of Minos, has already been noted as an area of settlement in Geometric times.² This is now further confirmed by the discovery of a well at about 50 metres north of the stream slightly to the west of the main road to Heraklion;³ with the exception of a small quantity of stray Middle and Late Minoan sherds in the first 2 metres, the finds ranged from Protogeometric to Early Orientalizing.⁴

The diameter of the well was 0.90 m. At a depth of 1.4 m. began a deposit of Geometric pottery which continued in large quantities down to the sixth metre, mixed with animal bones, pebbles, large stones, brown clayey earth, and a little charcoal. Farther down pottery became rarer and consisted mostly of large coarse wares, while the earth became looser. Between 9 and 10 metres fine pottery virtually ceased, except for small pieces of black cups as 60 and 61 below: much of the space was taken up by the sherds of one enormous coarse basin.⁵ Since no fragments of its bottom were found, we may conjecture that it was used as a well-head which either collapsed or was destroyed owing to the drying up of the well.⁶ Hence all pottery above the ninth metre is a rubbish fill, which will henceforth be referred to as the Upper Deposit.

Water was reached at about 10 metres; from here down to rock bottom at 12 metres was a fairly thick deposit of a distinctly different character, consisting largely of water-pots, some of which were found almost whole. The two commonest shapes were the hydria and the globular oinochoe. To call this Lower Deposit a closed one would be unwarrantably optimistic, seeing that a few additional fragments of the ubiquitous black cups occurred below water level, where they are plainly out of context.

The following catalogue is representative, not exhaustive. Where possible, parallels are quoted from the cemetery at Fortetsa, which now offers the most enlightening body of evidence for determining the chronology of the two deposits.

CATALOGUE

Lower deposit

1. HYDRIA, fragmentary. H. 0.34 m. (PLATE 42).

Soft pale-buff clay with gritty impurities. Vertical handle and much of upper part missing; horizontal handle attach-

ments preserved. Flat bottom; bands at rim and base of neck; three bands on shoulder, from the lowest of which hangs a bracket; on the lower body three bands, spaced.

¹ I am grateful to the Director and Managing Committee of the British School at Athens for the opportunity of studying this material during my tenure of the Macmillan Studentship. My thanks are also due to Messrs. J. K. Brock and R. M. Cook, who kindly read through this text and made many useful suggestions which I have here adopted; and to Miss Susan Wood for some of the drawings.

² *Archaeological Survey of the Knossos Area* (Hood, Smollett, and de Jong) nos. 112 and 107 (traces of Geometric settlement) and 109 (well containing Geometric and Early Orientalizing pottery).

³ The well lies just to the east of op. cit. no. 115, and was excavated by Mr. R. Stopford during the British School's excavations at Knossos in the summer of 1957.

⁴ It is convenient to adopt here the abbreviations of the chronological divisions suggested by Mr. J. K. Brock [*Fortetsa* xvi]:

<i>Period</i>	<i>Abbreviation</i>	<i>Date suggested by Brock</i>
Sub-Minoan	SM	1020-970 B.C.
Early Protogeometric	EPG	970-920 "
Middle Protogeometric	MPG	920-870 "
Late Protogeometric	LPG	870-850 "
Protogeometric B	PGB	850-820 "
Early Geometric	EG	820-800 "
Mature Geometric	MG	800-770 "
Late Geometric	LG	770-735 "
Early Orientalizing	EO	735-680 "
Late Orientalizing	LO	680-630 "

⁵ The diameter of the rim was about 0.95 m.

⁶ In the Athenian Agora a rough and ready well-head of similar shape was found in a Late Geometric well (R. 10. 5, unpublished), also a little way from the bottom. I am grateful to Miss Eva Brann for this information.

and leans forward on his stick.³¹ The weight is on the right leg, the left is set back. His eyes are not fixed upon any definite point within the composition. The figure is fluid and lightly poised.

The lekythos can be assigned to the Triglyph Painter,³² from the quality of the outlines and the rendering of profiles, arms, hands, feet, drapery, and other details.



FIG. 4. ATHENS 16461

As to the date, the shape of the lekythos, compared with nos. 19272 and 19273,³³ points to a slightly earlier period. The occurrence of palmettes on the shoulder and of a meander-band above the figures might also be considered an indication of early date. These features, however, are not always positive evidence for an earlier date, and their presence or absence cannot be taken as a decisive chronological criterion. The earlier types of shape and decoration may have overlapped with the later. The attitude of the female figure on 16461 is particularly stable; and the rendering is particularly simple—all details except those that are quite essential being omitted. A similar attitude, and similar drapery, occur in a few other peplos figures by the

³¹ For the friendly greeting cf. Himmelmann-Wildschütz, *Studien zum Ilissos-Relief* 12, n. 7.

³² For the work of this painter cf. Buschor, *Attische Lekythen* 19 f.; *ARV* 828–30.

³³ The shape of these lekythoi shows a slender body, sloping shoulder, and high neck. Similar examples are mostly attributed to the Triglyph Painter: Switzerland, private (Bloesch, *Antike Kunst in der Schweiz* 76 ff., pl. 43);

Lugano, von Schoen (Lullies, op. cit. pl. 43; *ARV* 830, 26); Brussels A 1022 (Furtwängler, *Coll. Somzée* pl. 39, iii = *Vente Somzée* pl. 5, 102; *CV Jb.*, pl. 2, 2; *ARV* 829, 12); Athens 1796 (Dumont and Chaplain, op. cit. pl. 29; Heinemann, op. cit. pl. 10; *ARV* 829, 6); Athens 1908 (*AE* 1906, 16; *ARV* 829, 16). It also occurs on the following white lekythoi in Athens, not in *ARV*: Athens 1764, 1832, 1855.

Triglyph Painter, one in Cambridge,³⁴ two in Athens.³⁵ These peplos figures, in which the body is welded together with the heavy garment, differ from most of the female figures which the same artist painted about 420–410 B.C.,³⁶ and which have the S-attitude characteristic of the period, with the calf of the tilted leg conspicuous under the garments (chiton and himation). This was a soft and free style in which the several members of the body were mostly treated each for its own sake. Figures like those on our lekythos represent a reaction against this style; and since the tendency towards simplification and general stability is a feature of the very last years of the fifth century, it will be natural to assign our vase, and those that go with it, to those years. The same tendency may perhaps be seen in the simplicity of the stele and of the big reserved palmette, which stresses the monumental character of the tomb. This would be the last phase of the Triglyph Painter's career.

On the lekythoi by the Reed Painter the dead seems isolated from the surrounding world. A few remarks, therefore, on the subject of this 'isolation' might be appropriate, although the topic has been dealt with repeatedly. In 19273 the interrelation between the woman's raised arm, which is active, the upper border of her himation, which falls within the orbit of this arm, and the gradual curves of her left arm, creates a double-spiral movement. This movement, though having an oblique axis, is balanced. It moves parallel to the picture-plane and to the stele, counterpoised by the oblique axis of the lower legs. It is also one of the two main directions of the composition. The other main direction is a movement running diagonally downwards from the purposely raised left arm of the dead towards the lower part of the stele. This movement is oblique, not parallel, to the picture-plane and the stele, and is therefore unbalanced. Combined with the upright straining of the figure of the dead, this diagonal movement changes the upright stability of that figure into a kind of insecurity. In addition, the sideward direction of the left leg adds fluidity. As the eyes of the dead are in line with the diagonal treatment—which is out of balance—they give the impression of one communing with his own inner being.

Although there is interplay between the axes of the two figures, the final result is not union but separation. The woman visits the grave with active determination; the dead, however, is unseen by her. The silent communication between the two persons is indirect, for the artist does not mean to join them in a common action, an action in which they both share; the communion between them takes place through the spectator only.

The contrast of active determination in one figure with fluidity and insecurity in the other may at first give the impression that there is a duality in the composition. In the figure of the youth, however, two subjects intersect:³⁷ a young traveller ready to depart, and the dead himself standing in front of his grave. This realized, there is a second, a lasting impression: that the whole composition is a unity. Further, the stele, though in the middle of the two figures, appears to adhere to the dead figure rather than to the living. The youth and the tomb seem to join each other's inner reality.

In no. 19272 (PLATE 40 a) the composition is not completely preserved, and not very much can be said about it. But one can still perceive the same main features as in no. 19273—the movement, parallel to the picture-plane, of one figure, the fluidity of the other.

As to the third lekythos by the Reed Painter (PLATE 41 a), it is not so successful as no. 19273. On the one hand, the figures are isolated from one another; but on the other hand, both have the withdrawnness of a dead figure; neither figure is parallel to the picture-plane and the stele,

³⁴ Cambridge G 141 (CV pl. 31, 5 and p. 33; ARV 829, 20).

³⁵ Athens 1756 (Dumont and Chaplain, op. cit. pl. 32; Heydemann, *Griechische Vasenbilder* pl. 12, 11; ARV 829, 4); Athens 1877 (ARV 830, 36).

³⁶ Athens, private coll. (Benndorf, op. cit. pl. 15; ARV

829, 9); Athens 1755 (Dumont and Chaplain, op. cit. pl. 24; ARV 829, 14); Warsaw (ex Czartoryski; CV pl. 44, 2; ARV 829, 7).

³⁷ For two subjects intersecting in one figure cf. *Attic White Lekythoi* 10.

2. HYDRIA. H. 0.285 m. (PLATE 42).

Soft gritty orange clay, very micaceous. Of the handles, the horizontal are cylindrical, the vertical slightly flattened. Flat bottom. Unglazed.

3. HYDRIA. H. 0.243 m. (PLATE 42).

Soft buff clay with gritty impurities. The mouth, the horizontal handles, and parts of the body are restored. Bottom slightly concave.

A band on base of neck. On the shoulder, three sets of four diminishing triangles, each enclosing two cross-hatched lozenges; five stripes. Below, two stripes (interrupted by horizontal handles), one band, two stripes. Vertical strap handle with two vertical stripes; the horizontal handles were glazed.

4. HYDRIA, fragmentary. Preserved h. 0.015 m. (PLATE 42).

Soft pale-buff clay; preserved up to the handle zone, which contains a steep zigzag between two stripes below and at least five above; lower body glazed. Ring foot.

5. OINOCHOE. H. 0.027 m. (PLATE 42, FIG. 1).

Pink-buff clay, cream slip; part of rim and body restored. Globular, with wide flat bottom. From a stripe at base of



FIG. 1. (SCALE 1:4)

neck hang a bracket enclosing two sets of fourfold concentric circles placed under one another, and three short vertical strokes either side of the handle, on which there is a rough spiral pattern; a circle of glaze round the lower attachment.

6. OINOCHOE. H. 0.223 m. (PLATE 42).

Fabric as 2. Parts of body restored. Cylindrical handle, flat bottom. Unglazed.

7. OINOCHOE, fragmentary. Preserved h. 0.155 m.

Soft pale-buff clay; preserved up to shoulder. Globular body, flat bottom. On the shoulder, fourfold concentric semicircles stand on the uppermost of four spaced bands.

8. OINOCHOE, fragmentary. Preserved h. 0.16 m.

Soft pale-buff clay; preserved up to belly. Globular body, flat bottom. A wavy line between spaced bands.

9. OINOCHOE, fragmentary. Preserved h. 0.19 m. (PLATE 42).

Soft pink-buff clay. Preserved up to base of neck, where a band is visible. Flat bottom. On shoulder, two sets of fivefold concentric semicircles stand on the uppermost of three spaced bands. Lower handle attachment glazed.

10. OINOCHOE, fragmentary. Preserved h. 0.20 m. (PLATE 42, FIG. 2).

Soft greenish-yellow clay with traces of cream slip. Most of neck and handle missing. A band round base of neck;

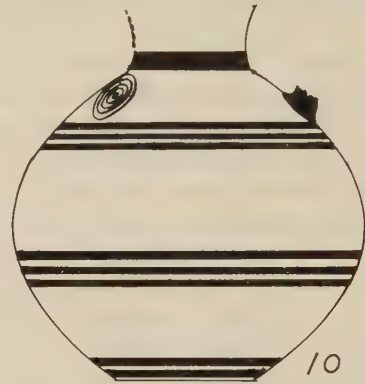


FIG. 2. (SCALE 1:4)

lower handle attachment glazed. On shoulder, two sets of fourfold concentric circles. Below, two sets of three stripes and another two round the bottom, which is flat.

11. OINOCHOE, fragmentary. Preserved h. 0.175 m.

Soft buff clay; most of neck and handle missing. Globular body with wide flat bottom, as 5. Two stripes at base of neck, from which hang groups of four vertical strokes; below handle attachment, two stripes, and two more, spaced, on lower body.

12. OINOCHOE. H. 0.193 m. (PLATE 42).

Soft gritty brown clay, cream slip. Mouth restored and not necessarily round. Flat bottom. On shoulder, three sets of threefold concentric circles with one band above and two below. Lower body and strap handle glazed. Cf. *Fortetsa* pl. 21, no. 274 (LPG).

13. OINOCHOE, fr. Preserved h. 0.10 m.

Lower body only. Soft gritty buff clay. Flat bottom. Traces of a pendent bracket between spaced bands.

14. BELL-KRATER, fr. Preserved h. 0.176 m. D. c. 0.23 m. (PLATE 43 a, FIG. 3).

Soft yellow clay, brown paint. Rim and handle glazed; in handle zone, two sets of sixfold concentric circles; bands below. Inside, a band of glaze round the rim; elsewhere spattered paint.

15. BELL-KRATER, two non-joining frs.: (a) FIG. 3, (b) FIG. 13. D. of rim c. 0.20 m.

Soft yellow clay. Groups of strokes on rim; a band of glaze round lip; immediately below, a pronounced ridge. (a) shows a horizontal handle attachment and (b) part of the decoration: sets of concentric circles connected by a triple chevron. Inside, a band of glaze round lip with traces of spatter elsewhere.

The ridge below the rim has been noted by Brock as a late feature in the development of the bell-krater; see *Fortetsa* 161 and cf. there nos. 317, 428, 1467, 1484, LPG-PGB.

16. KRATER, fr. D. of rim c. 0.24 m. (FIG. 3).

Fabric as **15**. Offset rim glazed on both sides and on top. No decoration visible.

17. BELL-KRATER, fr. H. 0.092 m. (FIG. 13).

Soft pink-buff clay with white grit; black glaze mostly off. Part of the wall, showing the decoration of the handle zone.

20. SKYPHOS, fragmentary (PLATE 45c, FIG. 4 (reconstruction)). H. 0.06 m. D. of rim c. 0.125 m., of base c. 0.07 m.

Soft pinkish micaceous clay; brown glaze outside, much faded, but good lustrous black glaze inside. Whole profile preserved, with attachment of horizontal cylindrical handle. Inside, a reserved stripe round the rim.

This is clearly an import. The shallow shape springs from Attica, where the earliest specimens have reserved panels of decoration enclosed by glaze. Our piece recalls rather the beginning of Attic Middle Geometric (i.e. Kahane's 'Strenggeometrisch', *AJA* 1940, 470 ff.), where the reserved

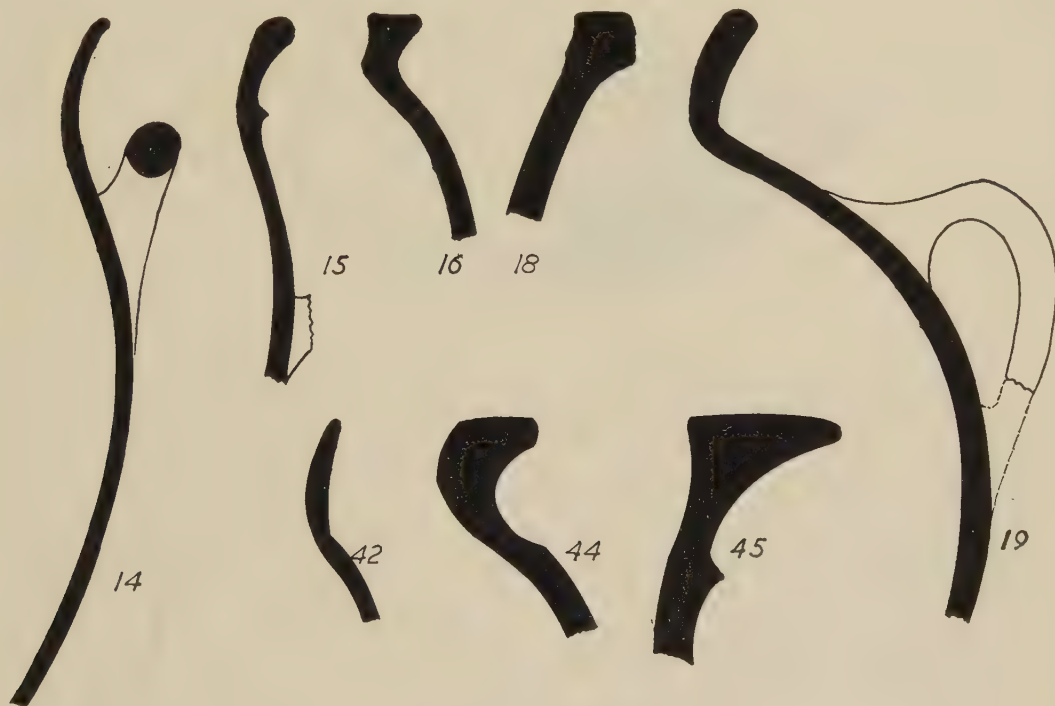


FIG. 3. (SCALE 1:2)

Above, three stripes; comparison with complete bell-kraters at Fortetsa suggests that a central panel with a column of threefold concentric circles, enclosed by arcading, was flanked either side by three verticals, a narrow column of diagonals, another vertical, and a larger set of concentric circles.

18. BOWL, fr. D. c. 0.32 m. (FIGS. 3, 13).

Pink-buff clay, brown glaze mostly off. Flat rim, the outside edge barred; below, a wide band. Alternating groups of diagonal strokes framed by verticals. Inside, a wide band at the rim; below, traces of spatter.

19. NECKED PITHOS, fr. D. of rim c. 0.20 m. (PLATE 43b, FIG. 3).

Soft yellow clay. Very faint traces of three stripes round the neck, otherwise no decoration visible. Vertical strap handle. For the shape cf. *Fortetsa* no. 244, dated M-LPG.

zone runs round the vase, interrupted only by the glaze of the handle, often with a star to fill the gap between the handle and the main motive. Cf. *Kerameikos* v. 1, Taf. 89, no. 2156, dated by Kübler to the turn of the ninth and eighth centuries. The fabric of our piece suggests the Cyclades rather than Attica as the place of origin; cf. two vases from tombs at Parakastri on Rheneia: the skyphos A1469 and the cup A1472, both in the Mykonos Museum, and illustrated in V. R. d'A. Desborough, *Protogeometric Pottery* pls. 18-19. The former is close to the shape of our skyphos, and the latter to its rather unusual decoration of cross-hatched lozenges; both may be slightly earlier, with their window-like panels still enclosed by glaze.

21. SKYPHOS, fr. D. c. 0.15 m. (PLATE 45d, FIG. 9).

Soft orange clay dipped in dull red-brown glaze. The handle evidently rose at a very low angle.

This piece is typical of the general run of Cretan LPG skyphoi, which may be seen to best advantage in *Fortetsa* Tomb L, pl. 21. Our fr. is nearest to no. 281, also dipped.

22. CUP, fr. D. c. 0.10 m. (PLATE 43*d*, FIG. 9).

Soft buff clay, dull black glaze. Offset lip, attachment of vertical handle.

23. Fr. of open vase, perhaps miniature bell-krater (PLATE 43*d*). D. c. 0.14 m.

Harder orange clay, red paint. Traces of two wavy lines near rim.

For a miniature of this shape see *Fortetsa* pl. 62, no. 1058 (LPG) and the group op. cit. 155 IIB(i).

33. COOKING POT, fr. D. of rim c. 0.19 m. (PLATE 43*e*, FIG. 14)

Hard red micaceous clay with white and grey impurities. Wide vertical strap handle. Incised decoration.

34. BOWL, fr. D. of rim c. 0.18 m. (PLATE 43*e*, FIG. 14).

Hard grey micaceous clay with gritty impurities. Incised decoration.

35. CUP fr. D. of rim c. 0.115 m. (PLATE 43*e*, FIG. 14).

Fabric as **33**. Decoration in white paint directly applied

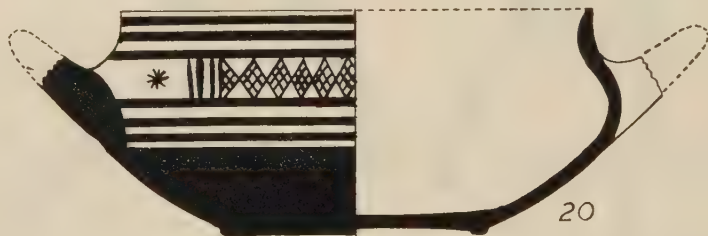


FIG. 4. (SCALE 1:2)

24. OINOCHOE, trefoil lipped; rim and neck (PLATE 43*d*).

Dark red-brown clay, micaceous and rather coarse like **2** and **6**. Thin fabric, no sign of glaze. Striations round base.

25. Fr. with cylindrical profile from neck of closed vase (PLATE 43*d*).

Good hard pink-buff clay, cream slip, chocolate glaze. The decoration is PGB, for which cf. *Fortetsa* pl. 25, no. 349. Probably from a tall-necked oinochoe as op. cit. pl. 29, no. 451.

26. Fr. of small open vase, possibly a skyphos (PLATE 43*d*).

Soft buff clay, black glaze; traces of glazing inside.

27. Fr. of closed vase, perhaps hydria (PLATE 43*d*).

Soft pink-buff clay, black glaze mostly off. Hatched cable above zigzag; splash of glaze inside. Hatched cables are common in PGB; cf. *Fortetsa* pl. 29, no. 493.

28. Fr. from shoulder of closed vase (PLATE 43*d*).

Soft buff clay, black glaze. A group of five vertical strokes, probably hanging from neck band. Perhaps from an hydria as **5** and **11**.

29. Fr. from wall of closed vase (FIG. 13).

Soft buff clay, red-brown glaze. Net of lozenges, alternately dotted and hatched.

30. Fr. from wall of closed vase (FIG. 13).

Soft buff clay, black glaze. Part of large hatched meander.

Coarse ware

31. JUG, fragmentary. H. 0.13 m. (PLATE 43*e*, FIG. 5).

Hard brick-red gritty clay. Striations at base of neck.

32. JUG. H. 0.16 m. (PLATE 43*c*).

Pale pink clay, coarse and gritty; striations on the belly.

to clay. See *Fortetsa* 188 for the use of white paint on PGB coarse wares.

36. BOWL, fr. D. c. 0.20 m. (PLATE 43*e*, FIG. 14).

Fabric as **34**. Broad striations.

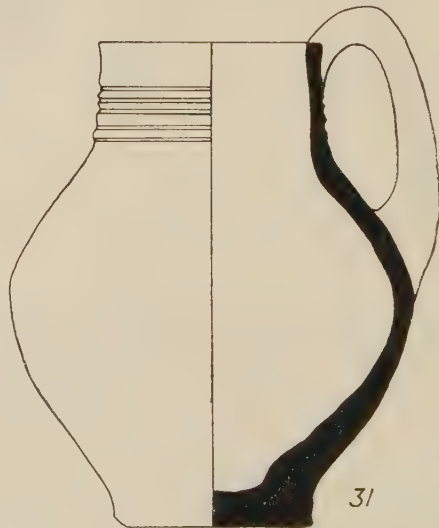


FIG. 5. (SCALE 1:2)

Small finds

37. SPINDLE WHORL OR BUTTON. D. 0.042 m. (PLATE 43*d*, FIG. 11).

Soft buff clay, like most of the hydriai and oinochoai.

38. Tip of BRONZE KNIFE. L. 0.029 m.

LOWER DEPOSIT: COMMENTARY AND CONCLUSIONS

There can be no mistaking the Protogeometric character of this group. The fabric conforms well with Brock's technical criteria for this period (*Fortetsa* 186), although except for a few cases (5, 10, 12, 25) whatever slip there may have been has disappeared owing to long soaking in mud. 2 and 6, representing the two commonest shapes, and the fr. 24 might almost be classed as coarse, differing from 31-36 only in the smaller proportion of grit, which makes them less hard.

For the hydriai there are no really satisfactory parallels. At Fortetsa the shape is commonest in PGB, but the ebullient style of decoration in that period is to be seen here only in the frs. 25 and 27. Of the few earlier examples from *Fortetsa* pl. 21, no. 304 (LPG) bears a slight resemblance to our 3, but both shape and decoration seem more developed. The bracket of 1 is found on *Fortetsa* pl. 78, no. 1188 (PGB), but again its shape, with the characteristic PGB narrow neck, looks far in advance of our hydria, which may be one of the earliest at Knossos. Other primitive versions of this type have more recently emerged from Protogeometric levels by the Royal Road at Knossos, where a study of the stratification may clarify the early history of this elusive shape.

The oinochoe in Crete never settles down to a standard shape until the Early Orientalizing period. Nevertheless, one may trace a typological development in the globular variety which is quite well represented at Fortetsa. (In the following analysis it is immaterial whether the mouth is trefoil or round.) The earliest occur in EPG contexts with a low conical foot (*Fortetsa* pl. 6, no. 69 and pl. 12, no. 182) comparable with that of the contemporary stirrup-vase (see the EPG group, *Fortetsa* pl. 38, and cf. nos. 621 and 627 with 619 and 628). This feature soon disappears, but its memory is preserved by the narrow bottom of a subsequent example, *Fortetsa* pl. 12, no. 142. In MPG contexts the bottom becomes wider (*Fortetsa* pl. 15, nos. 216 and pl. 8, no. 119), attaining its broadest proportions in LPG (*Fortetsa* pl. 21, no. 274) perhaps under the influence of the Attic Early Geometric broad-bottomed oinochoe evolved at about this time. By this reckoning our 6 and 10 will be MPG, and 5, 7-9, and 11-13 LPG.

The bell-krater is well represented at Fortetsa, where it is generally employed as a receptacle for cremations. Our frs. 14, 15, and 17 show that it could also be put to domestic uses. The ridge below the rim first occurs in the MPG Tomb V (*Fortetsa* pl. 16, no. 221), but does not become common until LPG; after PGB the shape disappears altogether. Our small 14 with its plain rim and simple concentric circle pattern might be MPG, but 17, with the ridge and triple chevron, is more probably LPG or even PGB.

The imported skyphos 20 is the only piece here which offers any chronological evidence for the dating of Cretan Protogeometric that is independent of the Fortetsa material. We have seen that a comparison with similar skyphoi in the Kerameikos precludes a date earlier than the beginning of Attic Middle Geometric, which probably began not later than the last quarter of the ninth century. It will thus fall into place beside the latest of the scraps catalogued here, among which 25 and 27 seem to be PGB, and 30 perhaps as late as EG.

We may now visualize the early history of the well. Dug perhaps round about 900 B.C., it was used to greatest advantage in the MPG and LPG periods, as is shown by the abundance of the water pots accidentally left at the bottom by their owners. In PGB the well declined in popularity, for a small amount of rubbish was evidently being thrown in. Then, in the closing years of the ninth century, the well-head either collapsed or was intentionally destroyed in a drought, and the well was used no more.

Upper deposit

39. KRATER, fragmentary. H. 0.245 m. D. of rim 0.26 m.
(PLATE 44, FIG. 6).

Orange-buff clay, surface well smoothed and polished, brown-black glaze. Profile complete except for handles, which were cylindrical and horizontal. The following are white-painted: stripes immediately above and below the

junction of neck and shoulder, and the two spaced stripes under the panel of decoration. Inside, one reserved stripe below the rim, the rest glazed. Low flat foot.

For the shape cf. *Fortetsa* no. 1122. A similar scheme of decoration occurs on a skyphos, *BSA* xxxi. 66, fig. 10, 19.

of reserved bands on the lower body; one stripe above the lower frieze of circles; two stripes above the rim frieze and one above. Reserved under handles. Inside, one reserved stripe below rim, otherwise glazed. Low ring foot.

The decoration of *Fortetsa* no. 1122 is closer to this vase

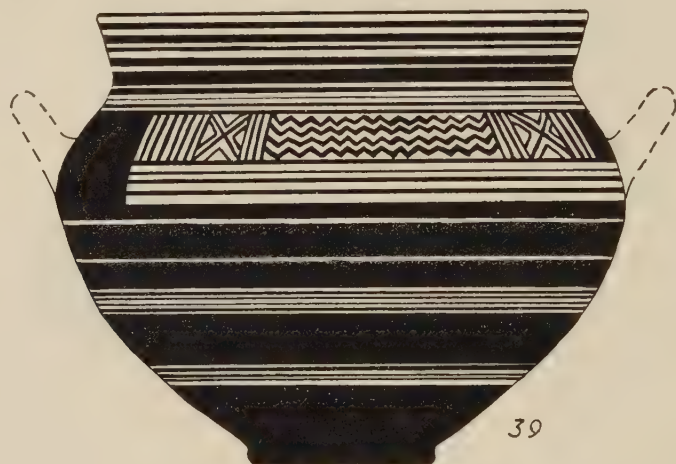


FIG. 6. (SCALE 1:4)

40. KRATER, fragmentary. H. 0.30 m. D. of rim 0.29 m. (PLATE 44, FIG. 7).

Pink-buff clay with grey core; surface polished but not so well smoothed as **39**; dull black glaze, peeling in places. Profile complete. The following are white-painted: all the circles; one stripe above and below each of the two groups

than to the above; for a simpler version see there pl. 70, no. 977, an oinochoe of EO shape and in an EO context. For the elaborated lozenge cross cf. also *Fortetsa* pl. 56, no. 858, an EO pithos. Our vase probably falls just within the EO period, although white circles become common on lower bands of pithoi in LG (*Fortetsa* 188).

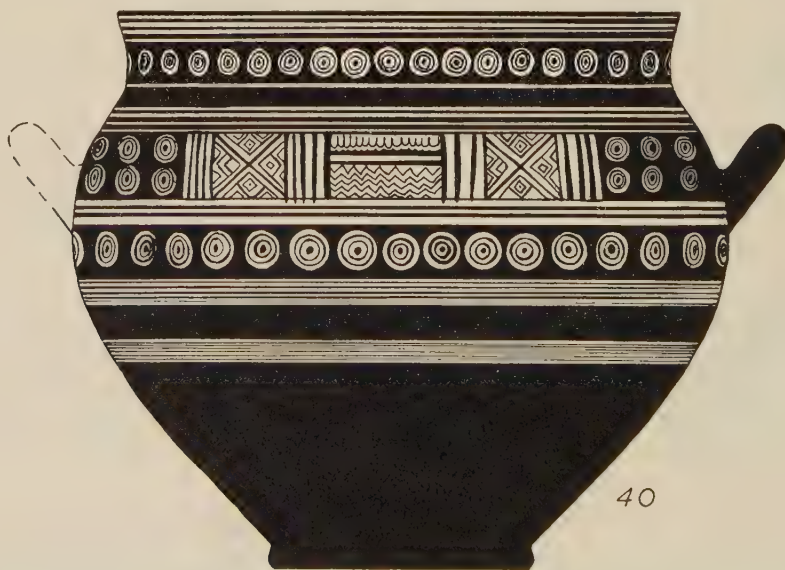


FIG. 7. (SCALE 1:4)

41. KRATER, fragmentary. D. of rim 0.188 m. (PLATE 46b). Pinkish-brown fabric, hard and thin; inside and outside entirely covered with a high black glaze. Handles and base missing.

42. KRATER, fr. D. of rim c. 0.23 m. Orange clay, cream slip, red matt glaze. Of the same type as **39**. Cf. also *BSA* xxxi, pl. 16, 13.

43. KRATER, fr. D. of rim c. 0.23 m. (PLATE 45b). Orange-buff clay, polished; dull black glaze; profile similar to **42**.

44. KRATER, fr. D. of rim c. 0.52 m. (PLATE 45b, FIG. 3). Hard pink-brown clay with a little white grit; black glaze. Groups of strokes across the rim. The motive below is probably a carelessly drawn multiple zigzag.

Kraters as large as this generally have high pedestalled feet. Such a vase was found whole by Dr. Platon in a tomb at Tekke, about one mile north of Knossos.

49. SKYPHOS, fr. (PLATE 45c). Orange clay, black glaze. Inside glazed.

50. SKYPHOS, fr. D. of rim c. 0.19 m. (PLATE 45c, FIG. 9). Orange clay, red-black glaze inside and out. The lip, no longer offset, has almost disappeared.

51. SKYPHOS or PYXIS fr. D. of rim c. 0.17 m. (PLATE 45d, FIG. 9). Orange clay, dull black glaze. Inside unglazed except for a band round the rim.

52. SKYPHOS, fr. D. c. 0.14 m. (PLATE 45d, FIG. 9). Orange-buff clay, red-brown glaze, peeling. Inside glazed.

53. SKYPHOS, fr. D. c. 0.22 m. (PLATE 45d, FIG. 9). Orange clay with white grit; black glaze. Part of hatched meander. Inside glazed.



FIG. 8. (SCALE 1:2)

45. KRATER, fr. D. c. 0.52 m. (PLATE 45b, FIG. 3). Buff clay, black glaze. Strokes across rim. Inside, a band of glaze at rim only. For the shape cf. *Kerameikos* v. 1, Taf. 17. In Attica this profile went out of fashion after Early Geometric.

46. BOWL, fragmentary. H. 0.085 m. D. 0.16 m. (PLATE 46a-b, FIG. 8).

Fine orange clay; all decoration in white paint on reddish-brown glaze. Strokes on rim and on the surviving lug handle. Flat bottom, also decorated.

A smaller bowl of similar shape, *Fortetsa* pl. 45, no. 689, also has white circles on red ground, but the handles differ; the context is EO. The lid, op. cit. pl. 83, no. 1218, belonging to an Orientalizing pithos, is very near in shape and decoration.

47. KALATHOS, fr. D. c. 0.22 m. (PLATE 45d, FIG. 11).

Dull reddish clay with particles of white grit and a few specks of mica; red-brown glaze, rather diluted. Inside glazed, except for rim. Cf. *Fortetsa* pl. 61, no. 1018 (PGB).

48. SKYPHOS, fr. D. of rim c. 0.145 m. (PLATE 45c, FIG. 9).

Orange clay, well smoothed; red glaze, peeling. Offset lip, tall and flaring, with four reserved stripes outside and one within; otherwise all glazed.

Cf. *Fortetsa* pl. 103, no. 1406.

54. SKYPHOS, fr. (PLATE 45d).

Orange-buff clay, red-brown glaze; from a low rounded type. For the row of chevron cf. *Kerameikos* v. 1, five examples on Taf. 91, all dated to the first half of the eighth century. Cf. also *Fortetsa* pl. 27, no. 396.

55. KOTYLE, fr. D. c. 0.14 m. (PLATE 45d, FIG. 9).

Orange clay, brown glaze; inside glazed. Attachment of horizontal handle.

56. KOTYLE, frs. D. c. 0.14 m. (PLATE 45d).

Fabric and profile as no. 55. Inside glazed.

57. KOTYLE, fragmentary. D. c. 0.16 m. (PLATE 45c, FIG. 9).

Buff clay, well polished; red glaze, peeling. Traces of horizontal handle. Inside, a reserved stripe below rim, otherwise glazed. Cf. *Fortetsa* pl. 104, no. 1541 for the grouped double circles.

58. KOTYLE, fr. D. c. 0.18 m. (PLATE 45c).

Buff clay with red core; black glaze, peeling. For the continuous row of double circles cf. *BSA* xxxi, pl. 15, 1.

59. KOTYLE, fragmentary. D. c. 0.10 m. (PLATE 45d, FIG. 9).

Fine orange-buff clay, cream slip; dark-brown glaze, peeling. Cf. *Fortetsa* pl. 50, no. 809, EO.

60. BLACK CUP, fragmentary. H. 0.104 m. D. of rim 0.13 m. (PLATE 44, FIG. 9).

Hard thin pink-buff fabric; black glaze outside, red-brown inside. Reserved stripe below rim both inside and out. *Fortetsa* 166, class B (iii).

61. BLACK CUP, fragmentary. D. of rim *c.* 0.147 m. (PLATE 44, FIG. 9).

Orange-buff clay, black glaze inside and out. Strap handle; bottom missing. *Fortetsa* 166, class B (iii).

65. LID, fr. D. *c.* 0.31 m. (PLATE 46c, FIG. 11).

Orange clay, black glaze. For the horizontal ~'s cf. *Fortetsa* pl. 31, no. 423, MG. Ours are more angular and probably later, as also are those on **91** and **97** below.

66. LID, fr. D. *c.* 0.30 m. (PLATE 46c, FIG. 11).

Orange clay with red core; black glaze, mostly off. Inside also glazed. Horizontal ~.

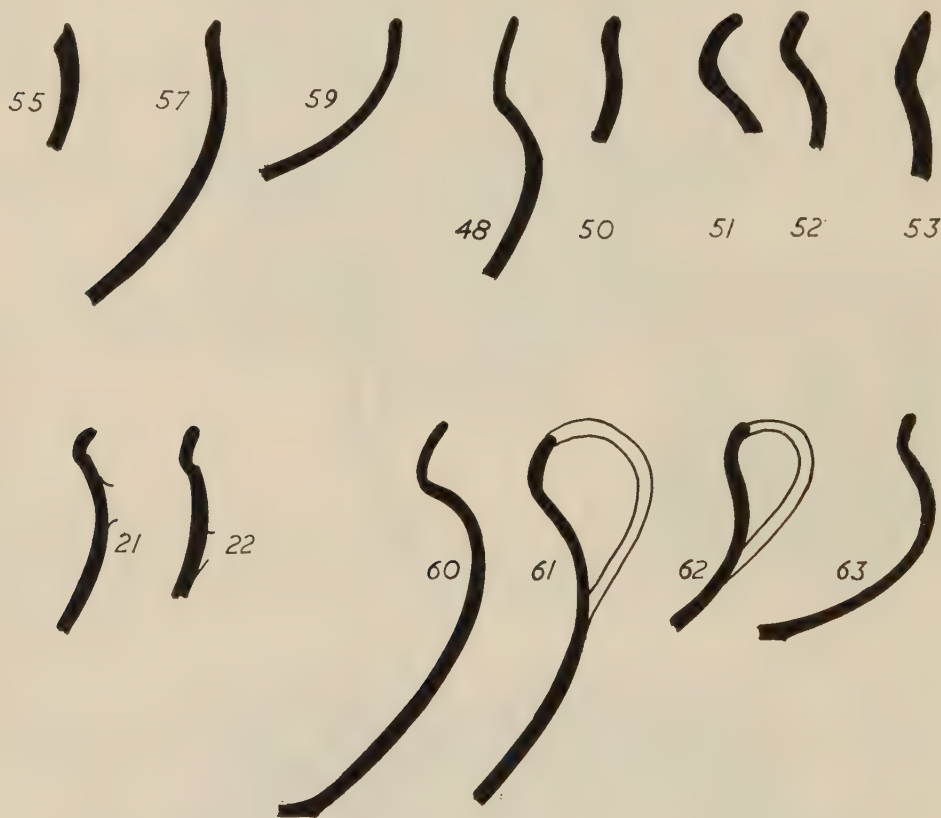


FIG. 9. (SCALE 1:2)

62. BLACK CUP, fr. D. of rim *c.* 0.11 m. (FIG. 9).

Hard brown clay, black glaze mostly off. Strap handle. *Fortetsa* 166, class B (iii).

63. BLACK CUP, fragmentary. H. 0.086 m. D. of rim *c.* 0.14 m. (FIG. 9).

Hard pink-brown clay, peeling black glaze. Handle missing. A shallower variant of *Fortetsa* 166, class B (iii).

64. LID, frs. of rim and knob handle. D. *c.* 0.31 m. (PLATE 46a, FIG. 10).

Hard orange clay, red-brown glaze; all decoration in added white. Deep ridge near rim, and two suspension holes. Irregular profile, causing the white stripes to go slightly askew. Strokes on rim; stripes and triple circles; arcaded tongues. Knob solid. Very similar in fabric to no. 46, and probably contemporary (EO).

67. LID, fr. D. *c.* 0.21 m. (PLATE 46c, FIG. 11).

Orange clay, decoration white on dark brown.

68. LID, fr. D. *c.* 0.21 m. (PLATE 46c, FIG. 11).

Orange-buff clay, decoration white on red-brown. Cf. *Fortetsa* pl. 84, no. 1278 (EO-LO) for the steeply rising profile.

69. LID, fr. D. *c.* 0.22 m. (PLATE 46c, FIG. 11).

Orange clay; decoration in white on a black ground which has almost entirely disappeared, leaving a rosy surface. Cf. *Fortetsa* pl. 56, no. 885, EO.

70. LID, fr. D. *c.* 0.20 m. (PLATE 46c, FIG. 11).

Smoky buff clay; decoration in white on a black ground, almost all off. From the rim, two stripes, cable of double horizontal ~'s, three stripes, double circles.

71. LID, fr. D. c. 0.18 m. (PLATE 46c, FIG. 11).

Orange clay, decoration white on red-brown. Cf. *BSA* xlix, pl. 23, no. 51.

72. LID, fr. D. c. 0.24 m. (PLATE 46a, FIG. 11).

Orange clay, decoration white on black.

73. LID, fr. (PLATE 46c).

Decoration partly white on black, partly black on clay ground.

74. LID, fr. (PLATE 46c).

From a lid similar to 68-69.

75. LID, fr. (PLATE 46c).

Decoration white on red-brown: linked leaves, hatched; zone of circles.

76. LID, fr. (PLATE 46c).

Decoration in black on polished brown clay surface; two zones of double circles,

77. LID, fr. (PLATE 46c).

Decoration white on brown. The central motive looks like the stylized birds' heads of *Fortetsa* pl. 46, nos. 677, 678.

78. PLATE, fr. (FIG. 13).

Pinkish clay with grey core; cream slip; black glaze, nearly off. On the under side, two spaced bands.

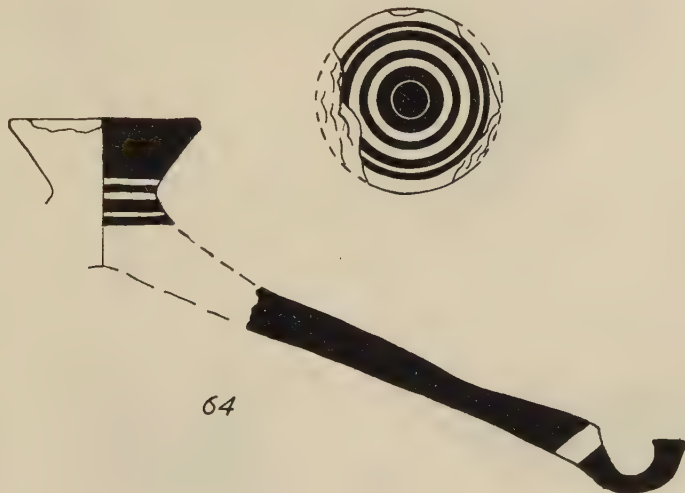


FIG. 10. (SCALE 1:2)



FIG. 11. (SCALE 1:2)

79. NECK-AMPHORA, fr. D. of rim c. 0.175 m. (PLATE 45a, FIG. 12).

Orange-black clay with a high black glaze. Round the lip, St. Andrew's crosses between groups of verticals. Traces of hatched meander in the neck panel.

Almost certainly Attic. The nearly vertical hatching is not found before the close of Middle Geometric, and dark ground amphorae continue well into Late Geometric. (See *Hesperia*, suppl. ii. 182-3, C. 138-40.) Cf. also *Kerameikos* v. 1, Taf. 33, no. 267, dated second quarter of eighth century; *JdI* 1899, 196, fig. 60, Middle Geometric, with similar lip decoration; and fig. 58 on the same page, with

similar hatching, found in a grave on the Pnyx containing Late Geometric vases.

80. AMPHORA, fr. D. of rim c. 0.21 m. (PLATE 45a).

Fabric as no. 79; again, almost certainly Attic.

81. AMPHORA, fr. D. of rim c. 0.21 m. (PLATE 46d).

Reddish clay, buff slip, red glaze. Widely flaring rim. For the decoration cf. our krater 39.

82. AMPHORA, neck fr. (PLATE 46d).

Reddish clay, buff slip, black glaze mostly off. The reserved leaf contours and some of the bonding lines reinforced in white paint. For the leaves cf. *Fortetsa* pl. 146, no. 401, LG.

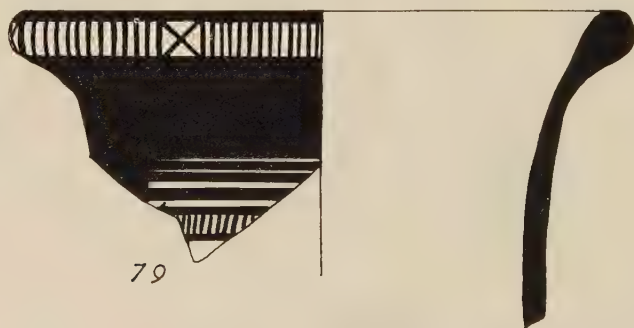


FIG. 12. (SCALE 1:2)



FIG. 13. (SCALE 1:2)

83. AMPHORA, neck fr. (PLATE 46d).

Fabric as **82**; one white stripe on clay ground.

84. AMPHORA, neck fr. (PLATE 46d).

Reddish clay; decoration white on black above, black on clay ground below.

85. AMPHORA, neck fr. (PLATE 46d).

Reddish clay, decoration white on black. Ridge, perhaps just below rim, with white dots.

86. AMPHORA, neck fr. (PLATE 46d).

Reddish clay, grey core; diluted brown glaze with one white stripe below the black band.

87. AMPHORA, neck fr. (PLATE 46d).

Reddish clay; black glaze on clay ground with two white lines above rib and one below.

88. AMPHORA, neck and shoulder fr. (PLATE 46d).

Reddish-buff clay; concentric circles in white, otherwise black on clay ground.

89. PYXIS, frs. D. of rim c. 0.08 m. (PLATE 45a, FIG. 11).

Pink clay, rather gritty; cream slip, black glaze, peeling. Surface uneven. The handle zone probably contained a central panel of multiple zigzag flanked either side by vertical lines and dotted circles enclosing a St. Andrew's cross. Lower down, a narrow zone with plain circles between groups of six vertical lines. Attachment of horizontal handle.

This shape, not found at Fortetsa, may have been introduced to Crete from Corinth, like the kotyle; cf. the Corinthian Geometric pyxis, *BSA* xlviii, pl. 50, no. 833a, from Ithaca. *Fortetsa* pl. 45, no. 699, a small domed lid, may

be designed to fit this shape. For the dotted circles with St. Andrew's cross cf. the EO pithos, *Fortetsa* pl. 85, no. 1501.

90. PYXIS, fr. D. of rim c. 0.08 m. (PLATE 45a, FIG. 11).

Pink clay, thin cream wash, high black glaze. Uneven surface. Horizontal handle attachment.

91-102. Miscellaneous frs. of closed vases (PLATE 47a, FIG. 13).

94 and **101** from necks, **91** from a shoulder, the rest from walls.

103. Fr., perhaps from near top of low-domed lid (PLATE 47a).

Cf. *Fortetsa* no. 593.

104. Fr. of closed vase (FIG. 13).

Pink clay, thin buff slip, black glaze, nearly all off. Body and legs of a crudely drawn bird.

105. Fr. of closed vase (FIG. 13).

Pink clay, cream slip, brown glaze. Feet and talons of bird.

Unglazed

106. SHALLOW BOWL, fragmentary. H. 0.06 m. D. 0.20 m. (PLATE 47b).

Pink-buff clay, grey core; polished. Striations on rim, flat bottom.

107. SHALLOW BOWL, fr. D. c. 0.20 m. (PLATE 47c, FIG. 14). Orange clay, well polished; horizontal reflex handles.

108-10. CUP frs., rims and handles. Ds. c. 0.14 m., 0.16 m., 0.10 m. (PLATE 47b, FIG. 14).

Three frs. representative of a large amount of sherds. Fine

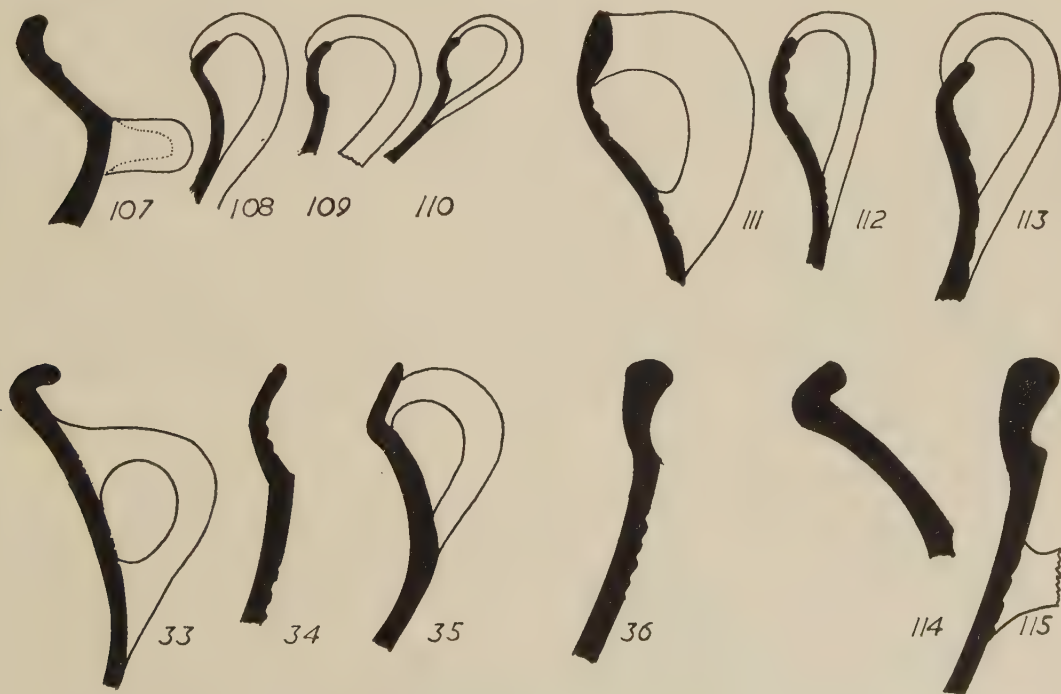


FIG. 14. (SCALE 1:2)

orange-buff clay: **108** has a smooth cream slip, **109-10** unslipped. Handles always attached inside rim in the manner of earlier glazed cups like *Fortetsa* pl. 35, no. 434 (PGB). The slipped variety imitates the shape of the black cups, whereas those without slip are shallower, with a sharp carination under the rim.

111-12. JUG frs., rims and handles. Ds. c. 0.10, 0.08 m. (PLATE 47c, FIG. 14).

Hard orange clay with a few gritty impurities. The shape recalls that of **31** in the Lower Deposit, but the fabric has improved so much that it would be wrong to call it coarse.

113. JUG fr., rim and handle (PLATE 47c, FIG. 14).

Soft yellow clay with a few particles of white grit.

Coarse

114. COOKING POT, fr. D. of rim c. 0.22 m. (PLATE 47c, FIG. 14).

Purplish red clay, gritty and micaceous.

115. BOWL, fr. D. c. 0.29 m. (PLATE 47c, FIG. 14).

Fabric as **114**; horizontal strap handle.

116-19. Frs. from rim (**116**) and walls of LARGE BOWLS (PLATE 47d).

Fabric as **114**; incised patterns, usually horizontal wreath.

120-4. PITHOI, wall frs. (PLATE 47d).

The clay varies from purplish-red (**120**) to orange, with large lumps of black grit. Stamped decoration: concentric circles (**120-3**) and spirals (**124**).

UPPER DEPOSIT: COMMENTARY AND CONCLUSIONS

The improvement in the technique of the painted pottery is at once apparent both in the preparation of the clay and the control of the firing. Generally the fabric is much harder; the colour of the clay is usually orange or orange-buff, although larger vases often show a reddish tinge (**81-88**). Slip is seldom used, and seldom necessary. At its best the glaze shines with a fairly high lustre, but not high enough to prevent the Attic fragments **79-80** from attracting attention.

In this upper fill the domestic character of the pottery is maintained, but whereas in the Lower Deposit the great majority of the vases were designed for drawing and drinking water, here a larger proportion of wares cater for the needs of the kitchen and the storeroom. Several of *Fortetsa*'s most common shapes find no place here, and are evidently confined to tombs; we miss in particular the painted pithos, that *pièce de résistance* of the early Cretan potter, and the accompanying small aryballos, so ubiquitous an offering for the dead. Elegantly painted lids, however, occur here in large quantities, and appear to have an existence quite independent of the pithoi which they accompany in the cemeteries; no doubt they were useful for protecting storage vases from dust and heat.

The most distinguished of the shapes in this fill is the *krater* with offset rim, a late Geometric type well known in many other parts of the Aegean world, especially Corinthia and the Argolid (cf. *AJA* xxxiv. 414, fig. 7 from Corinth, and *Tiryns* i, pl. 19, no. 7). It never became popular in Cretan cemeteries, where the painted pithos reigned supreme, but there are enough fragments from areas of settlement to show that it was a common domestic shape. The decoration of our **40** betrays some kinship with the style of EO pithoi, while the others of this shape probably come at the end of LG (i.e. **39, 42-43**).

The glazed *krater* **41**, with its fine thin walls, should be taken with the group of *black cups* **60-62**, belonging to Brock's class B (iii) which were found in LG and EO contexts. Of the large quantity of cup fragments, the greatest proportion were of this type, remarkable for its fine fabric, almost rivalling Middle Minoan eggshell ware. Not so numerous were the sherds of the thicker and heavier class B (ii), which apparently ceases in MG. Finally, there was only one tall rim from the exclusively Orientalizing class B (iv).

Geometric *skyphoi* were never as common in Crete as elsewhere in the Greek world, and are not well enough represented here for us to tell whether they followed the same typological evolution as in the mainland styles. But the *kytyle* was evidently more to Cretan taste, for both

the early shallow type and the deep later variety are known to have been imported and imitated. The occurrence of the kotyle in Crete may be tabulated as follows:

The shallow kotyle

Import: *BSA* xxxi, pl. 18, 6.

Imitation:

(a) Original Corinthian decoration: *Fortetsa* no. 809; here 55, 56.

(b) Double circles: *Fortetsa* nos. 997, 1541; here 57-58.

BSA xxxi, pl. 15, 1; *BSA* xlix, pl. 26, no. 76.

The deep kotyle

Import: *Fortetsa* no. 970.

Imitation:

(a) Original Corinthian decoration: *Fortetsa* nos. 944, 1543; *BSA* xxix. 264, fig. 28; *EA* 1945-7, 63, fig. 13, 82-83.

(b) Double circles: *Fortetsa* no. 1232; with foot added, no. 1287.

(c) True Orientalizing decoration: *Fortetsa* nos. 1203, 1340, 1346; with foot added, no. 963. *BSA* xxix, pl. 11, 5; *BSA* xlix, pl. 26, no. 77; *EA* 1945-7, 63, fig. 13, 84-86.

The presence of only the shallow kotyle in this well confirms the natural supposition that the two types arrived in Crete in the same order as that in which they were invented in Corinth. No doubt they were soon imitated after their arrival, but seldom in a slavish way; they more usually appear in Cretan dress with a band of the double circles so beloved of the local potter. The deep kotyle, with the exception of *Fortetsa* no. 1346, is confined to the LO period, while the shallow form, as far as we know, does not survive the end of EO.

Apart from the evidence from kotylai, it is unlikely that any of the pottery from the Upper Deposit is later than EO, for nowhere do we find any truly Orientalizing decoration. We miss, of course, the evidence that painted pithoi would be able to give us, as we know that they were adorned in a way far in advance of their smaller contemporaries. There are signs, however, that towards the end of EO the more modest shapes were beginning to catch up. (See, for instance, *Fortetsa* nos. 735, 806, 973, 1126, 1346, 1369, all in EO contexts.) Our latest pieces, then, should be dated not very far into EO, with the great mass of the Deposit quite close, on either side, to the boundary between the Geometric and Orientalizing periods.

To return, then, to the posthumous history of the well. Throughout the eighth century it was used as a rubbish dump, cautiously at first, as very little of the pottery can belong to the Early and Mature Geometric periods. Then, some time after the middle of the century, the great majority of the fine pottery was jettisoned, and the filling was completed not long before 700 B.C.

J. N. COLDSTREAM

THE TRIBAL ORGANIZATION OF CHIOS¹

(PLATES 48-50)

THE economic and political development of the Greek states from the eighth century onwards left few, if any, of their tribal organizations unaffected; as these became unworkable or unpopular, the traditional divisions into tribes, phratries, and *gene*, based in practice, if not in origin, on kinship, were sooner or later replaced or modified. But the factors which led to reform were many; it might be the problem of a subject population, a mixed population, a shifting population, or of synoecism; it might be the need for military reform; or simply a question of political feeling, an attempt to satisfy anti-aristocratic prejudice by destroying the essentially aristocratic kinship system. More than one factor could be involved in any change; each might have a different effect on the result. Consequently the process was not simple or uniform; the new order might be wholly artificial or merely a modification of the old; the old might be discarded or retained alongside the new for some special purpose; old names, proper or generic, might still be used in the new system at the same or even at a different level.² In such confusion it is essential to analyse in detail the evidence for each organization on its own before looking for any general pattern or arguing by analogy from one state's system to another.

In the case of Chios the relevant documents have often been interpreted in the light of what was known of the gentilicial system of Attica.³ Tribes, of number unknown, were thought to have been divided into phratries, each composed of several smaller units of two kinds, *gene* and *thiasoi*. The comparison is misleading. The constitution of the Attic phratries is far from clear, but, whatever it may have been, these documents from Chios, of which the text is given below, must belong to a very different order.

1. Chios Museum (inv. no. 2044; from Dotia). Pillar of blue-grey Chian marble, upper part of face carefully dressed, the rest rough and tapering towards the bottom. H. 0.68 m. W. 0.28 m. Th. 0.125 m. Letters: first row, 0.011 m., others, 0.009 m. Interl. 0.003 m.

B. Haussoullier, *BCH* iii (1879) 323, no. 9 (= Michel, *Recueil* 1144) and *BCH* iv (1880) 130; R. Schoell, *Sat. Saupp. Obl.* (1879) 171; G. Zolotas, *Ἀθηνᾶ* xx (1908) 175-6 (= M. Guarducci, op. cit. (note 2) 97, no. xxi) and *Ἱστορία τῆς Χίου* i. 397-8; A. Stephanou, *τὰ Νέα τοῦ Βροντάδου*, December 11th, 1955, p. 2; cf. A. Plassart and C. Picard, *BCH* xxxvii (1913) 219. Phot. PLATE 48a.

ΤΟΤΤΕΙ[δῶν]
 Δημογενίδαι
 Θραικίδαι
 οἱ Τηλάγρου
 5 οἱ Ἑρμιοῦ
 οἱ Διονυσόδωρου
 καὶ Ποσειδίππου
 (vac.)

¹ I am very grateful to Professor A. Andrewes and Mr. P. M. Fraser for their generous help and advice in the preparation of this paper.

² As *genos* was used at Samos (M. Guarducci, *L'Istituzione della fratria* 61-63) or *patra* at Kamiros (Andrewes, *BSA* lii (1957) 30-37). Cf. below nn. 5, 7, and 39.

³ Cf. the works cited on the inscriptions below and, for example, Francotte, *La Polis grecque* 202, n. 1; A. von Premerstein, *AM* xxxv (1910) 116; Busolt-Swoboda, *GS* 254, n. 1; M. Nilsson, *Cults, Myths, etc.* (1951) 150 f.; C. Hignett, *HAC* 62; G. Dunst, *Arch. Pap.* xvi (1958) 178.

Line 1: Haussoullier's misreading, Γ.οττει[...], led to a number of conjectures which there is no need to reproduce; Zolotas's suggestion Τοττει[δῶν] is confirmed by a re-examination of the stone and by the form of the following inscriptions; Mr. Stephanou has now abandoned his published reading, Γοττει[δῶν].

2. Chios Museum (inv. no. 132; from the Kastro in Chios town). Pillar of blue-grey Chian marble, similar to 1 above but broken off at bottom. H. 0.35 m. W. 0.35 m. Th. 0.15 m. Letters: line 1, 0.012 m.; lines 2-8, 0.008 m. Interl. 0.004 m.; lines 9-11, 0.016-0.018 m. Interl. 0.005 m.

Zolotas, opp. cit. 229, no. ΛΘ' and i. 395-7; Plassart and Picard, op. cit. 228, no. 32 (= Guarducci, op. cit. 98, no. xxii). Phot. PLATE 49a.

Χαλάζων
Ἀμαίδαι
Μεσθαάδαι
Πολυ[.]λτάδαι
5 Δελφ[ίνιοι οἱ ...]ιος
οἱ Ἀνα[-----]
οἱ Ἀριστ[...ο]υ
οἱ Ἡρακλείτ[ου]
postscript: Χαλάζων
10 Πρώτων
Ε
(*vac.*)

Zolotas's second version looks like a careless reprint of his first, itself inferior to that of Plassart and Picard, which appears to be correct except in line 7 where I cannot see their Ἀριστ[.]λίου and 8 where I add some letters. For the restoration of line 5 see below, n. 13.

3. Chios Museum (inv. no. 2046; from Berberato). Pillar of blue-grey Chian marble, similar to the preceding and like it broken off at bottom. H. 0.39 m. W. 0.37 m. Th. 0.14 m.

Zolotas, opp. cit. 176, 230, no. Μ' and i. 395-7 (= Guarducci, op. cit. 98, no. xxiii); Stephanou, *Χιακὰ Μελετήματα* i (1958) 13-14.

[Χα]λάζων
Ἴσχυλίδαι
Κυλλίδαι
οἱ Πυθοδώρου
5 οἱ Μητροδώρου
οἱ Μάτριος
οἱ Ἀρχέλεω
οἱ Διοσκουρίδου
οἱ Παρμενίσκου
(*vac.*)

The text is Stephanou's, which differs from Zolotas's only in line 3 where he proposed Κυδ[υ]ίδαι or Κυλ[λ]ίδαι.

4. Chios Museum (inv. no. 778; from Barbasi). Pillar of blue-grey Chian marble, similar to the preceding and like it broken off at bottom. H. 0.29 m. W. 0.23 m. Th. 0.155 m. Letters: lines 2-8, 0.008 m. Interl. 0.004 m.; lines 9-11, 0.016 m. Interl. 0.011 m.

Stephanou, Τὰ Νέα τοῦ Βροντάδου, loc. cit. (= *SEG* xv. 537; cf. L. and J. Robert, *REG* lxi (1956) 151, no. 208) and Χιακὰ Μελετήματα 14-19. Phot. PLATE 48b.

Τ[ΟΤΤ]Ε[ΙΔΩΝ]
 Πρεσβῶνοι οἱ Αὐτοκράτου
 οἱ Βέρτιος
 Νεμωνίδαι
 5 Θεοσκοπίδαι
 οἱ Φιλίσκου
 οἱ Ἀπολλοδώρου
 οἱ Ἀγαθάνορος
 οἱ Ἑκάτεος
 10 *postscript*: ΤΟΤΤΕΙΔ[ΩΝ]
 Δευτέρω
 Γ
 (*vac.*)

The lettering of the three inscriptions I have seen (1, 2, and 4) is by the same hand and may be dated to about 330-320 B.C. The postscripts on 2 and 4 have been added in a later hand, probably of the second century B.C.

These are clearly lists of the constituent units of certain sections of two groups, the Totteidai and Chalazoi; groups, sections, and units which were created or already existed in the late fourth century and still existed in the second century when the postscripts were added (it is difficult to imagine circumstances in which such additions would be made unless the documents were still relevant at the time). The postscripts might point to some modification of the system, but this modification could only be a rearrangement of the groups within the system or the addition of new sections to a group or something of this kind; it could not involve any alteration of the sections themselves or of the units within the sections. Indeed, although the sample is small, it may be significant that the postscripts appear only on those stones which come from the town of Chios or its environs.⁴ This would suggest that they were added only to clarify the existing situation in the thickly populated urban area where a large number of sections would be found side by side. In short, if there were changes, which I doubt, they were not changes of principle, and we may use the postscripts as a guide to the nature of the system as a whole.

The Totteidai and Chalazoi were each divided into at least two sections, and this alone makes it improbable (if not impossible) that they were phratries in the normal sense of the word. There is no instance of an intermediate stage of division between the phratry and its component *gene* in a strictly gentilicial system.⁵

This first stage of subdivision is confirmed by the postscripts, Χάλαζοι πρῶτοι, ΤΟΤΤΕΙΔΑΙ δεῦτεροι.⁶ A second may be inferred from the *epsilon* and *gamma* of 2. 11 and 4. 12. The units listed in 2 are together given the number 5, those in 4 the number 3. But does this mean that they form subsections 5 and 3 of the first Chalazoi and second Totteidai respectively, or do they

⁴ The distribution is not, I think, accidental. 2, which was found in the Kastro, may have come from anywhere, but the others are less likely to be wanderers. Cf. below, p. 176.

⁵ For the use of the word 'phratry' alongside artificial names in a modified gentilicial system see Latte in *RE* art. Phratry, 747 f., and below, n. 7.

⁶ There is no exact parallel for the form, but cf., at Miletos, Ἀργαδίων πρώτη (sc. χιλιαστὺς) (Wiegand, *SbAk Berlin* 1904, 85); at Kyzikos, Αἰγικορεὺς μέσης (*CIG* 3657). The three columns at Kamiros may indicate a similar type of division (cf. Andrewes, loc. cit., and below, n. 11). For the nominative Χάλαζοι cf. the place-name of the same form: n. 20 below.

together make up the first Chalazoi and second Totteidai, which are themselves sections 5 and 3 in some general register?⁷

I find the first alternative more plausible for two reasons. (i) It would be less natural to put the postscript in the genitive if the units of 4, for example, together exhausted the second Totteidai. (ii) It is probable, though it cannot be proved, that the basic units are comparatively small, something between ten and fifty men, like the artificial *thiasoi* of fourth-century Athens.⁸ Each stone would then include, let us say, about 200 men. On the second interpretation it would follow either that there was a large number of groups at the level of the Totteidai or that the Totteidai were divided into a large number of sections at the level of the *πρῶτοι* and *δευτέροι*. In either case the numbering of these sections in a general register would run up to fifty or beyond, if they were to include the whole population of Chios.⁹ But we have two inscriptions of the Totteidai, two of the Chalazoi, none of any other group; one *πρῶτοι*, one *δευτέροι*, none of any higher number; one *gamma*, one *epsilon*, none of any later letter. The odds are against such an accident of survival.¹⁰

I am therefore inclined to believe that the first interpretation is correct, that we are dealing with a system of four levels like those of Kos, Samos, and perhaps Kamiros.¹¹ The Totteidai, the Chalazoi, and perhaps one or two other groups were divided into *πρῶτοι*, *δευτέροι*, and perhaps *τρίτοι*, each of these sections in turn divided into some five or six subsections (*α*, *β*, *γ*, &c.) containing an average of seven basic units. If this scheme is correct, the number of stages and the number of the subdivisions at each stage make it impossible to consider the Totteidai and Chalazoi as phratries or anything of a similar order. They must be the major units of the social organization, whether called tribes or by some other name.¹²

In either case the system to which they belong is in some sense artificial; it is not a traditional kinship organization. This is shown clearly enough by the numbered divisions of the postscripts, but there are two other points which confirm it.

(i) Two names among the basic units stand out from the rest, *Πρεσβῶνοι οἱ Ἀδοκράτου* (4. 2) and *Δεληφ[ίνοι οἱ ...]ῖος* (2. 5).¹³ In an inscription of c. 200 B.C. which regulates the gifts of King Attalos I to Chios¹⁴ there is another name which must be restored on the same pattern

⁷ For a numerical arrangement of large units as implied by the second interpretation cf. numbered tribes in Sicily (*IG* xiv. 2407, 10–19); or, a closer parallel, the tribes of Ankyra which had both names and numbers (*JOAI* xxx (1937) Beiblatt 23 ff.).

Alexandria offers an example of the use of numbers to distinguish subdivisions of a large unit (as on the first interpretation). *PTeb* 879 mentions a *τρίτη φράτρα* and, if *PHib* 28 describes the Alexandrian system, as it almost certainly does (J. Seyfarth, *Aegyptus* xxxv (1955) 10 ff.), the *φράτρα* there, in spite of the name a wholly artificial unit, were subdivisions of demes, themselves subdivisions of the tribes.

⁸ *IG* ii². 2345.

⁹ Cf. Beloch, *Bevölkerung* 234; C. Roebuck, *Ionian Trade* (1959) 21 ff., for such evidence as there is.

¹⁰ A third inscription of the Totteidai might be used as an argument for the rejected interpretation, but it has been wrongly understood. See Appendix A.

¹¹ Cf. Guarducci and Andrewes, locc. citt. Andrewes (p. 31) refers to an 'organization at three levels', but if the heading *Ἀλθαίμενις* did appear in col. III of the relevant inscription (p. 35 with n. 20) four levels are implied.

¹² There is little or no evidence for the names of social

groups in Chios after the fourth century (see Appendix B). One stone (Studniczka, *AM* xiii (1888) 175, no. 19) mentions a *χιλιαστὴς ἡ Χαλκιδέων* and this has been used as evidence for the existence of such bodies in Chios (by Guarducci, op. cit. 66), but an earlier publication records that it had been transported from Erythrai (W. Vischer, *Rh. Mus.* xxii (1867) 326 f. = *Kl. Schrift.* ii. 156), and only positive arguments for a Chian origin can legitimately be used against this testimony. Difficulties in finding a home for these *Χαλκιδεῖς* in Erythrai (G. Dunst, *SbAKBert* 1960, i. 23–24) do not constitute such an argument.

¹³ A restoration of this type is inescapable, but *Δεληφ[ίνοι]* is not, of course, the only possible form of the name.

¹⁴ Zolotas, op. cit. 163 ff. no. Γ' and *Ἱστορία τῆς Χίου* i. 388 ff., revised by Plassart and Picard, op. cit. no. 26; Col. A is reproduced (with bibliography) by F. G. Maier, *Gr. Mauerbauinschr.* i. 192–5, no. 51. The readings given in the text are mine and differ from those of earlier editors. The ascription of the gift to Attalos I seems to me virtually certain. In this inscription three groups are mentioned, the *Φιλαῖδα* (cf. Kontoleon, *Ἀθηνᾶ* li (1941–6) 126–7), the *Δοθ[εῖ]δαι Πρηξίτιμιδαι* (cf. below n. 16) and the *Ἱεροποιοί*. It is likely that they are all units of the kind that appears on our lists.

Ἱεροποιοὶ [οἱ] ἥνορος. These names imply the existence of other Presbonoi, Delphinioi, and Hieropoioi, and of Presbonoi, Delphinioi, and Hieropoioi as a whole; indeed the Presbonoi and perhaps the Hieropoioi appear as single units in earlier inscriptions.¹⁵ One would imagine that these units had at some time become so large or so dispersed that they had to be divided, as in Attica the Salaminioi were divided into οἱ ἀπὸ Σουνιοῦ and οἱ ἐκ τῶν ἑπτὰ φυλῶν, or as the Alkmeonids might have been divided in 508 into Ἀλκμεωνίδαι οἱ Ἀλκμέωνος, οἱ Ἀριστωνύμου, &c., if Kleisthenes had retained the *genos* as an effective local unit.¹⁶

But if these groups had been subdivided within an existing organization, the subdivisions should have remained part of the same larger unit; if, for example, the Presbonoi as a whole had been second Totteidai, then Presbonoi οἱ Ἀδοκράτου and Presbonoi οἱ τοῦ δέϊνος should both appear on the same stone. One cannot be certain that they do not, for οἱ Βέρτιος (4. 3) might be an abbreviation for Πρεσβῶνοι οἱ Βέρτιος (thus we could explain the odd position of this unit in the list).¹⁷ But this is, I feel, unlikely in a formal document where full titles are appropriate and ambiguities are to be avoided.¹⁸ If then the other Presbonoi are to be found in different sections or subsections, it follows that these sections or subsections are artificial creations which in some way cut across the organization to which the Presbonoi, &c., had previously belonged.

(ii) Of three documents of the Totteidai (one not previously mentioned: see Appendix A), one comes from the south-east, another from a suburb of the town, the third from the centre of the island; one list of the Chalazoi comes from the centre, the other from the town. Inscriptions wander, but rarely as much as this, and the absence of any mark on the stones to distinguish the different subsections of either group (before the addition of the postscripts) should mean that the distinction was already made clear in some other way, one imagines by their geographical separation—the reader of 1 at Dotia would not be tempted to confuse these Totteidai with the others of Barbasi (4). We naturally think of some arrangement of the sections within the group like that of the Kleisthenic *trittyes*.

The exact nature of the system remains obscure. The tribal names must be in some sense artificial, but whether they are old names given a new application or inventions is not clear. A Tottes brought the cult of the Kabeiroi to Miletos, and he may have travelled on to Chios with his patrons who were worshipped there.¹⁹ Chalazoi occurs as a place-name in south-east Chios,²⁰ but it is unlikely that the place would give its name directly to the scattered sections of the new Chalazoi or that it would derive its name from one of these sections (though this is just possible). Equally we cannot tell what the total number of the tribes was, though the fact that

¹⁵ The Presbonoi, P. Jacobsthal in *Nordion. Steine* 16 f. with fig. 4; the Hieropoioi, A. Wilhelm, *JOAI* xxviii (1933) 197 ff. (B6). The Presbonoi are owners of a *hieron* of Acheloos about 400 B.C.; the Hieropoioi are to receive payments on behalf of the phratry (or tribe) of the Klytidai (cf. below, pp. 179 f.) in the middle of the fourth century. They may be, of course, no more than officials of the Klytidai, but equally they may be a *genos* named after its hereditary function, cf. the Kerukes in Attica. The Attalos inscription at least shows that the name could be applied to a group who were bound together by more than common office ([οἱ . . .] ἥνορος). The restoration [οἱ μετὰ ἥνορος, which would make them an annual or, at least, periodic board of officials, is ruled out by the fact that they are to receive a δασμὸς αἰδασμὸς ἔτους ἑκάστου.

¹⁶ The Salaminioi, W. F. Ferguson, *Hesperia* vii (1938) 1 ff., cf. Hignett, *HAC* 391 ff. with reff. The Alkmeonidai, Kirchner, *PA* no. 647, and G. Stamires and L. Vanderpool,

Hesperia xix (1950) 376 ff. Two other names on the Attalos inscr. remain puzzling, Δοθ[ε]ῖδαι Πρηξιτιμίδαι (B37–38) and Ἀ[. . .]μητίδαι Λευκῶνιοι (A 27). The second is used geographically but presumably had a personal origin. The form again suggests some kind of subdivision, but one can only guess at the circumstances of it. The first at any rate would have been divided at a time when -ίδαι was still a current formation (Andrewes, *op. cit.* 32), well before the fourth century, and not, one imagines, at the same time as the Presbonoi, &c.—one would have expected a similar form throughout.

¹⁷ Below, p. 177.

¹⁸ There would be no ambiguity in 4, but in 2, e.g., οἱ Ἀνα[] may be more Delphinioi. Are οἱ Ἀρισ[] yet more Delphinioi?

¹⁹ *FGH* 90 F52. Attalos inscr., B31; cf. Hemberg, *Die Kabiren* 139, n. 2, and 140.

²⁰ Attalos inscr. B25 and Zolotas, *Ἱστορία* i. 374.

we have three mentions of Totteidai, two of Chalazoi, and none of any other group suggests that it was small.

More interesting but equally baffling is the question of the names and nature of the smallest units. There are two problems, the origin of the names and the basis for the unity of the groups. Apart from the double titles (the result of the subdivision and redistribution of earlier groups), the names are of two kinds, a few straightforward patronymics in -ιδαι or -άδαι, most formed by the definite article and a genitive. This seems to imply some difference between them, but it is unlikely that this difference lies in their status within the new system. With one exception (4. 3), the patronymic groups precede the others, and this might indicate some seniority; but more probably the difference is to be explained by the origin of the names themselves. Had they all been inventions, we should have expected uniformity; the patronymics, then, like the double titles, were probably inherited from the earlier system and this more august origin is perhaps enough to explain their position at the head of the lists.

From the form alone one would expect οἱ Βέρτιος and others of that type to be contemporary creations. Such a form is regularly used to describe a man's family, but not his descendants, for whom οἱ ἀπὸ would be more normal. It can also be used to describe other kinds of relationship,²¹ but always, I think, an immediate relationship. It therefore seems certain that Bertes, Philiskos, and the rest were alive when the names were given, that they were the leaders of these groups.²² The addition of the postscripts in the second century shows that the groups survived the death of their leaders,²³ and this is unlikely if the units were wholly random, if the only tie between the members and their leader was the fact of his leadership. We must therefore assume a family connexion, though even then the survival of the names in this form would be difficult to explain. οἱ Βέρτιος could hardly come to mean the same as οἱ ἀπὸ τοῦ Βέρτιος. But it may be that the names did change in practice to οἱ ἀπὸ τοῦ δέινος as the leaders died, but that this was not felt to justify an alteration of these inscriptions, which would still be unambiguous.²⁴

One other oddity should be mentioned. In 1. 6-7 we read οἱ Διονυσιοδώρου καὶ Ποσειδίππου, a form which it is not easy to explain unless, as Professor Andrewes suggests to me, we have here a combination of two family groups, each too small to form an independent unit.

The basis of the system, then, was geographical; identity of domicile at the time of the change was a necessary condition for membership. But, as we have now seen, the names imply that kinship was also a criterion and remained a criterion inside the basic unit.²⁵ Thus, at this lowest

²¹ Cf. the military groups in Egypt; *Pros. Ptol.* nos. 1825 ff.

²² Several of the names recur in late fourth-century contexts—Poseidippos, Philiskos, Metrodoros, Apollodoros, and Dioskourides all appear in the catalogue of the Totteidai (see Appendix A), but these names are too common to be significant. Besides, if my interpretation of the catalogue is correct, men listed in it could not be leaders of units in these sections, and, in any case, Metrodoros could not be both of the Totteidai and Chalazoi. Otherwise Apollodoroi, Metrodoroi, Dionysodoroi, Dioskouridai, and names in Ana- and Arist- abound at or about the right period; there is at least one Parmeniskos (*Rev. Phil.* (3^{me} sér.) xi (1937) 322, l. 11), perhaps two Herakleitoi (*IG* iv². 123. 117; 'Aθηνᾶ xx (1908) 200, no. Z' 29), a Philiskos (*IG* ix. 4.547), a Hermis (*SIG*³ 402. 40; though the genitive is there 'Ερμιδος), and a Hekates (Studniczka, *AM* xiii (1888) no. 32). The last two are uncommon enough in Chios to be significant. 'Aθηνᾶ xx (1908) no. ΠΓ' might read Βέρτιο[s] and should be of the fourth century or earlier (the absence of a patronymic and the fact that the name is at the top of

the stone point to a date before 300, to judge from other Chian tombstones). It is just conceivable that the Archelas who went on an embassy to Athens in 384 (*SIG*³ 142. 41) might have survived long enough to give his name to οἱ 'Αρχελέω. Of the names which do not occur (Poseidippos, Telagros, Pythodoros, Matris, Agathanor) only the first, I think, is found at any earlier date (on a coin c. 400; Mavrogordato, *Num. Chron.* xviii (1918) 73-75).

²³ See above, p. 174.

²⁴ L. Robert, *BCH* lviii (1933) 483 f., publishes a dedication of the late fourth century by a certain Euenor. I know of no Chian name long enough to fill the gap in the example cited above (p. 176, n. 15) from the Attalos inscr. and am therefore inclined to restore 'ἑποποιοῖς [τοῖς ἀπὸ Εὐ]ήνορος. But the stone which defined the place of the Hieropoioi in the system would have read and would still read 'ἑποποιοὶ οἱ Εὐήνορος.

²⁵ Many of the Totteidai in the Catalogue (Appendix A) are obviously related but this, in itself, does not prove that they were basically a gentilicial group. Any local unit would contain members of the same families.

level, the reform may have involved little radical change except for the extension of the existing type of classification to cover a wider circle of the population. But the superstructure must have been entirely new and to adapt the old units to it some surgery would be necessary. The patronymic forms, then, might belong to *gene* who had retained some local unity; the double names to those *gene* who were already divided *de facto*; the genitive form to those who, for whatever reason, had no *genos* or to those *gennetai* who were so dispersed that it was no longer practicable to retain the *genos*-name.²⁶ That the word *genos* was still applied to the new units is quite probable, as it was in the artificial system of Samos; the word continues to appear in inscriptions after the fourth century.²⁷

Our inscriptions were cut about 325 B.C. and it would be natural to suppose that they marked, if not the inauguration of the system as a whole, at least a modification of it which was important enough to require a new record. That they do has now been made virtually certain by the discovery of an earlier inscription of what I take to be the same general type, but of a very different order.²⁸

5. Chios Museum (inv. no. 813; from Berberato).²⁹ Fragment of Chian marble broken all round except at top, where a small part of the edge, much worn, is probably preserved. H. 0.22 m. W. 0.29 m. Th. 0.095 m.

Stoichedon. Letters: 0.018 m. Interl. 0.004 m. Interax. (irregular) 0.022–0.028 m.

A. P. Stephanou, *Χιακὰ Μελετήματα* i (1958) 11–12, w. phot. fig. 3 = *SEG* xvii. 380. PLATE 50a.

[...] Πολυτεκ[ν- - -]
 [...]μητιδέων
 [...]χρηῖς
 [...]ηξίδαι
 5 [Θ]εοπομπίδαι
 [Ὶ]κκυνέων
 [...]υνεῖδαι
 [...]πείς
 [...]αῖδαι
 10 [......]κράτew[ν]

The letter forms suggest a date in the first quarter of the fourth century.

Line 1: see below, p. 179. Line 2: The ending recalls the Ἀ[...]μητιδαῖ Λευκῶνιοι of the Attalos inscr. (A 27; above, n. 16) where the number of letters missing is not certain (1–3). If they are the same, perhaps [Ἀτι]μητιδέων, but cf. on line 6. Line 3: perhaps [Ἀρ]χρηῖς (for an Argos in Chios, Zolotas, *Ἀθηνᾶ* xx (1908) no. Γ' col. A, line 11; the name Ἀργεῖος is common). Line 4: e.g. [Πρ]ηξίδαι. Line 6: alternatively [Ὶ]κ Κυνέων, thus strengthening the suggestion made and rejected below (p. 179) that the stone had more than one column; but, while line 10 could be restored on similar lines, line 2, as far as I can see, could not. Line 7: perhaps [Ε]υνεῖδαι (cf. the Attic *genos* of that name, Harpokr. s.v., &c.). Line 8: perhaps [Ὶ]πείς,

²⁶ The former would mean that about 60 per cent. of the population had been non-*gennetai*.

²⁷ Cf. n. 2 above. The word occurs in Ἀθηνᾶ xx (1908) no. PMZ' and Paspatis, *Χιακὸν Γλωσσάριον* no. 53. But in neither case need it be in a technical sense.

²⁸ The stone was discovered by Mr. Stephanou who, with characteristic generosity, has published it at once so that I might use it in this paper, which could not have

been written without his unselfish co-operation on this and many other points.

²⁹ The number of important inscriptions from the area of Berberato indicates a major sanctuary nearby. Among tribal inscriptions alone, the Catalogue, the second list of Chalazoi (3), and this fragment; among others, the letter of Alexander (Tod, *GHI* ii. 192), while the 'Constitution' was found at Tholopotami on the other side of the valley.

another functional *genos* like the Hieropoioi. Line 9: if [Ἀμ]αῖδα, their appearance later among the Chalazoi would prove the hypothesis of a change between, but there are many other possibilities.

Again we have a list of units forming sections of some larger group, but here the names are all of normal patronymic form in -ῖδα with a fair sprinkling of the common alternative in -εῖς.³⁰

Two complete sections are preserved, the [...]μητίδα and the [Ἐ]κκυεῖς, with the heading of a third, the [...]κράτεις. The first line might contain the last unit of the preceding section or, more probably, since I am fairly sure that the stone is complete at the top, the heading of the whole column. If the former, there is something wrong with the stoichedon pattern or something odd in the form of the name.³¹ If the latter, a break in the pattern would be more likely, but unnecessary, for we could restore (for example) [Φυλῆ] Πολυτεκ[ν...]. But with or without the restoration it is likely that we have here the name of a tribe derived from the eighth-century king of Chios, Polytekno³² and, even if we have not, the list can hardly be anything but a tribal list.

From this we can infer that at some date in the fourth century, probably about 325 when **1-4** were cut, units of the type οἱ τοῦ δαίμονος were introduced into the social organization of Chios. For the first time Bertēs, Philiskos, and the rest shared the same register as the Demogenidai and the Presbonoi. This much is certain and it is a change of the greatest importance. But was the whole of the artificial system created at the same time? It would be simplest to assume that the units of **5** were *gene*, the sections genuine phratries, the column a kinship tribe; and that the Totteidai and Chalazoi were something entirely new. But, on the other hand, **5** itself might belong to the artificial order in an earlier form. The stone might have carried two or three columns arranged, for example, like those of Kamiros:³³ our fragment the Πολυτεκ[ν-] πρῶτοι, to its right the Πολυτεκ[ν-] δεῦτεροι. The [...]μητίδα and the [Ἐ]κκυεῖς would also appear in the other column(s), those before us being the nuclei around which the Πολυτεκ[ν-] πρῶτοι α and β would later be built. The cutting of **1-4** would mark no more than the admission of non-*gennetai* and the dropping of the 'phratry' names. The vital change to a non-gentilicial system would occur in the early, not the late, fourth century.

But the activities of another social group, the Klytidai, tell strongly against this interpretation. This group is known from two fourth-century inscriptions, one of about 335, a series of resolutions about their κοινὰ ἱερά (PLATE 49 (b)), the other, rather earlier, a record of land-leases.³⁴ At first regarded as a *genos*, they were promoted by Schoell to the status of a phratry mainly on the strength of the provision in the first of these inscriptions (l. 29) φρατρίαν δὲ μηδὲ ιδιώτην μηθέν α τῶι οἴκῳ τούτῳ χρῆσθαι.³⁵ But, as Nilsson has recently pointed out,³⁶ these words would more naturally imply that the phratries were subdivisions of the Klytidai, who were reserving the use of their sanctuary for celebrations common to all Klytidai and not just to any part or parts thereof. In that case they are a tribe. But their status is not for us of the first importance. What matters is that the Klytidai of the mid-fourth century, with ἱερά that were originally not κοινά, must be a long-established body. For reformers of the date of **5** would

³⁰ Cf. Andrewes, *op. cit.* 33.

³¹ e.g. [οἱ ἐκ] Πολυτέκ[νου].

³² Hippias, *FGH* 421 F 1. For conjectural dates, *Historia* vi (1957) 168 n. 9; Jacoby, *Commentary* ad loc.

³³ Andrewes, *loc. cit.*; cf. above, n. 11.

³⁴ *SIG*³ 987 and (the most recent text) A. Wilhelm, *JÖAI* xxviii (1933) 197 ff. Haussoullier dated the former to the end of the century, but it is certainly somewhat

earlier, of much the same date as **1-4**. I cannot decide on epigraphical grounds whether it comes before or after them (the reader may judge for himself from PLATE 49b), and the date given in the text (335 B.C.) is only the result of my inability to fit the Klytidai, as I imagine them to have been, into the system of **1-4** as I imagine it to have been.

³⁵ *Op. cit.* 171.

³⁶ *Op. cit.* 151 n. 5.

presumably have seen to it that their artificial 'phratries' (and artificial they would certainly have been on the second interpretation of 5) started out with *ἱερά* that were already *κοινά* in practice as well as theory.³⁷ Even more decisive is the mention, in the first of the land-leases, of an archon of the Klytidai whose name is certainly restored by Wilhelm as Ἀργε[ῖος Κλυ]τομήδους.³⁸ His year of office cannot be much after 360, and his father should therefore have been born some time before 420. It can hardly be doubted that he owed his name to the tribe (or phratry) into which he was born. 5, then, introduced no dramatic modifications, for it is unlikely that the Klytidai were simply allowed to survive alongside a new organization. As we have seen, the basic units of the old system were fitted into the new and, unlike the disestablished *gene* of Attica which still made up the disestablished phratries, the still-established *gene* of Chios would have little time for their discarded superstructure.

It remains possible that the reform came even earlier, before the date of 5, before the birth of Klytomedes. But (i) the word φρατρία makes it likely that the organization which used it c. 335 was still gentilicial;³⁹ (ii) the Hieropoioi of the land-leases, if they are a *genos*, are still undivided in about 360;⁴⁰ (iii) the Presbonoi all share a common *hieron* as late as 400.⁴¹ None of these points is decisive, but together they indicate (to me, at any rate) that the old gentilicial system survived, more or less unchanged, until the date of 1-4.

The documents discussed above are the only evidence for the nature of the tribal organization of Chios.⁴² The conclusions can hardly be regarded as certain. But the hypothesis of a sweeping reform of the whole social system about 325 B.C. is at least not inconsistent with what we know from other sources of the constitutional history of the island.⁴³

An early start on the road to democracy (marked by the 'Constitution' of c. 570)⁴⁴ does not seem to have led very far; the word δῆμος occurs in an obscure context in a late sixth-century decree,⁴⁵ but the only surviving prescript of a state decree from the fifth century reads only βολῆς γνώμη;⁴⁶ the Spartans in 412 do business only with the βουλή;⁴⁷ Thucydides praises Chian σωφροσύνη, a virtue which he would not see in radical democracy.⁴⁸ Thus the democracy which was established in 394 may well have been the first in Chian history.⁴⁹ We know little of this democracy beyond the fact of its installation, of its continued existence at the time of the Athenian alliance of 384, and of its overthrow in or before the Social War.⁵⁰ But if it was at this time that Chian aristocrats led the democratic revolution,⁵¹ we can see one possible reason why it should have brought no drastic tribal reform. If the existing order in which they retained their traditional influence was still practicable in other ways, they may well have been prepared to let it stand. Again, this would probably be the democracy to which Isokrates brought his counsel (καὶ ἄρχαός δὲ περὶ τὴν Χίον κατέστησε καὶ τὴν αὐτὴν τῇ πατρίδι πολιτεῖαν)⁵² but we may wonder how far Isokrates' friends would be prepared to follow, and how far

³⁷ On democrats and *κοινά ἱερά* see below, n. 54. The authors of the change would certainly be democrats (below, p. 181).

³⁸ Op. cit. In fact ΥΤΟΜΗ can be read on the stone.

³⁹ Above, nn. 2, 5, and 7. There is still some justification for the use of *patra* at Kamiros (as there may have been for *genos* at Samos) in that these units were at least in part of gentilicial origin. It would be less easy to incorporate larger units in a new system and therefore less likely that the original name would be used. There are, of course, the extraordinary phratries of Alexandria, but they are extraordinary.

⁴⁰ Cf. above, p. 176. ⁴¹ Cf. above, p. 176, n. 15.

⁴² See Appendix B for a few other references to tribes, &c., from Chios.

⁴³ For a bibliography to 1936 see P. Argenti, *Bibliography of Chios* (1940) 207 ff. Cf. n. 44.

⁴⁴ L. H. Jeffery, *BSA* li (1956) 157 ff.

⁴⁵ B. Latyshev, *Зап. Им. Русс. Акад.* iv (1890) 1-4 and 13. The copy reads: ὈΝ ὈΕΗΜΟΣῃΘΕ in which Latyshev sees ὁ (δ) ἦμος. There is, I think, no alternative.

⁴⁶ *SIG*³ 986.

⁴⁷ Thuc. viii. 14. 2.

⁴⁸ viii. 24.

⁴⁹ *DS* xiv. 84. 3.

⁵⁰ Tod, *GHI* ii. 118; Dem. xv. 19. To this democracy belongs the decree, Ἀθηνᾶ xx (1908) no. PMΘ' (cf. *BCH* xxxvii (1913) 231 no. 35).

⁵¹ Aristotle, *Pol.* 1306^b5.

⁵² [Plut.] *Mor.* 837b.

Isokrates himself would be prepared to press, the Athenian model.⁵³ More specifically, would he recommend the creation of local tribes? If he did, he did not follow Kleisthenes in any detail, for it is difficult to fit 5 into a Kleisthenic or even near-Kleisthenic pattern.

5 was almost certainly cut during these years of democracy and may well mark some kind of modification, but we have no means of knowing what it was. At least the Klytidai survived and were even allowed to carry on in their ancestral and aristocratic ways, for it was probably not until some time later that they began to liberalize their constitution. Aristotle says that the setting up of common *ἱερά* is a democratic move,⁵⁴ and it is tempting to associate their first resolution, by which their κοινὰ ἱερά were to be removed from private houses⁵⁵ and kept in a *ἱερὸς οἶκος* constructed for the purpose, with some more general attack on aristocratic privilege. But the date of this first decree is too uncertain to make guessing profitable.⁵⁶ It shows, however, that about the middle of the century a struggle was going on within the tribes (or phratries), that the democracy of 394 had not satisfied democratic feeling; in other words, there was a case for change. After the political upheavals of the 330's, the case was, I suspect, even clearer and there was, besides, the opportunity. When, in 332, Alexander instructed the Chians to restore their exiles and establish a democracy, he added that they should appoint a board of νομογράφοι to draw up a constitution in which there should be nothing to hinder the full reinstatement of these exiles.⁵⁷ It is easy to imagine how the existence of a gentilicial organization might interfere with this and lead the νομογράφοι to do what Chian democrats hitherto had failed to do: to transform the whole social system; to create new local tribes; to admit not only the exiles but all who had previously been excluded from the privileged tribal registers of aristocratic Chios.

APPENDIX A

In Ἀθηνᾶ xx (1908) 205 ff. Zolotas published the five surviving fragments of a catalogue of individual Totteidai without an adequate description of the interrelation of the different sections of the text. In *BCH* xxxvii (1913) 215 ff. (no. 28) Plassart and Picard corrected many of Zolotas's readings and gave for the first time a description of the stone. But since it is still not easy to get a satisfactory picture of the whole, I am publishing here a complete text, although the readings differ from those of Plassart and Picard only in minor details.

Chios Museum (inv. no. 26; from Daphnonas). Five fragments of blue-grey Chian marble, making left-hand side of *stele*, cut down on right, broken off at bottom. H. 1.39 m. W. 0.39 m. Th. 0.175 m. At top, lintel 0.04 m. high. Inscribed on three surviving faces, A, C, and D.

Zolotas, loc. cit. (Zol.); Plassart and Picard, loc. cit. (PP) (= Guarducci, op. cit. 97, no. xx); cf. G. Dunst, *Arch. Pap.* xvi (1958) 175 ff.

A. Letters: (prescript) 0.014 m. Interl. 0.006 m. Lines 2-4 *stoichedon*, interax. 0.02 m. (others) 0.012 m. Interl. 0.004 m.

There is a gap of 0.035 m. between the prescript and the list.

Ἐπὶ Με[-----πρυτάνεως]
 ἔγνωσαν Τότε[ιδαι-^{ε.20}-----]
 τοὺς ὄντας Τοτ[τείδας-^{ε.13}-----τοὺς ἀγα-]
 γόντας τάγωγαί[α-----]

⁵³ For Isokrates' views on democracy see A. Fuks, *The Ancestral Constitution* 7-11 with notes and refs.

⁵⁴ *Pol.* 1319^b19.

⁵⁵ In line 1 I read ΕΣΒΥΤ (cf. *PLATE* 49 *b*; ΕΣΗ- Hauss., ΕΣΩΤ Sourias) whence we may infer the existence of a body called οἱ πρεσβύτεροι among the Klytidai. It would be in

their houses, perhaps, that the *ἱερά* had previously been kept.

⁵⁶ The second and third decrees are passed in different years (lines 10 and 22), but one cannot judge the interval. The issue settled by the second would arise as soon as the first was put into effect and, one imagines, would be settled fairly soon.

⁵⁷ Tod, *GHI* ii. 192.

Col. I

Col. II *missing*

- 5 Ἡρόδοτος Ἡροδό[του]
 Λύκος Ἀπελλέος
 Κλευκύδης Μεγαρ[έως]
 Ἑμπεδος Ἰκεσίου
 Ἀπολλωνίδης Ἡροδό[του]
 10 [Π]ολύξενος Κλεππίδ[ου]
 Τήλεφος Φιλίσκου
 Φε[ρ]εκλῆς Δεινίου
 Μ[ητ]ρόδ[ωρος] -----
 Νι[-----]
 15 Νικ[-----]
 Θευδι[-----]
 Μητρο[-----]
 Ἀσκληπι[-----]
 Ἀπολλόδ[-----]
 20 Μύσσης Μύ[στου] γονῆι δὲ
 Ποσειδίππου
 Θῶραξ Μεγα[ρέως]
 Ἀρχαγόρας Λ[-----]
 Ζηνόδοτος Λ[-----]
 25 Πεισαγόρας Μι[-----]
 Εὐβουλος Καν[-----]
 Θεύφιλος Ἡρακλ[-----]
 Φανόπολις Ἀγγε[-----]
 Ποσειδίππος Εἰρη[ναίου] -
 30 Ἀγγελῆς Ζηνόδ[-----]
 Φίλτης Ποσειδί[ππου]
 [Μ]ικκάλλης Πλ[-----]
 [.]ιλλας Διαν[-----]
 Κλεππίδης Λεον[-----]
 35 Ἀπολλώνι[ο]ς Κλ[-----]
 Μικκίων Ἀριστ[-----]
 Φάνης Ζήνων[ος]
 Ποσειδίππος Πα[-----]
 Ἰκέσιος Ἑμπέδ[ου]
 40 Ἀργεῖος Ἴππίου
 Λαμπραγόρας[-----]
 Ἰφιδάμας Εὐρυ[-----]
 Διοτρ[έφ]ης Λ[-----]
 Μεγα[ρεῦ]ς Κ[λευκύδους]
 45 Φιλίσσης Κ[-----]
 Σκυθίων Κ[-----]
 Δειν[ί]ας [-----]
 Φαν[-----]
 Ἰκέ[σιος] -----^{c. 10} -----ο]υ

- 50 Ἡρ[...^{c.6}... Κλευκ]ύδο[υς]
 Θρ[-----^{c.10}-----]δότο[υ]
 Ἀγγ[...^{c.7}...]τι[.]ωνος
 Ἀγγ[ελης...]^{c.7}Ιλ[...]^{c.7}Ε[---]
 Πε[...^{c.7}...]ς Δι[...]^{c.7}ιο[---]
 55 Ἐρ[...^{c.8}...]ο[ς Δι]ονυ[σίου]
 [...^{c.10}...]ο[ς] Διονυσίου
 [Ἀπολλ]ω[ν]ίδης Τιμοκρ[----]
 [...^{c.7}...]ν[.]ς Ἰσαγόρου
 Φίλισκος Τηλέ[φου]
 60 Εὐρύδικος Ἀρ[-----]
 Οἶνοπίδης Οἶν[οπίδου]
 Τ[...^{c.6}...]ς Πυθῶ
 Ἐ[...^{c.6}...]της Βίωνος
 Ἡ[...^{c.7}...Διο]σκουρίδου
 65 [...^{c.7}...Διοσκ]ουρίδου
 [...^{c.13}...]ίκου

? *vacat*

B is missing.

C. Back. The upper part of the left-hand column (I) is missing. Letters, in various hands, (I) 0·016 m., interl. 0·005 m., (II) varying from 0·009–0·016 m., interl. 0·004–0·015 m.

Col. I

Col. II

Between 50 and 60 rows missing

- 5 [Ἀπ]ολλωνίδης
 [Ἀπ]ολλωνίδου
 Ἀπολλωνίδης
 Ἀπολλωνίδου
 Φιλώτας
 Ἀπολλωνίδου
 Ἑρμῶνας
 Κηφεισολέ[ω]
 [Ζῆ]νις
 10 [Πο]σειδίππου
 [Π]οσειδίππος
 Ζήνι[δος]

About 32 rows missing

- 45 [Φαι]νόμ[ενος]
 Φησίνου
 Ποσειδίππος
 Ζήνιδος
 Φαινόμενος
 50 Φαινομένου γονῆ(ι)

47 [ˈ.ɜː] πᾱ[---]
[ˈ.ɜː] αῖος [Ἀρτε]μεῦς
[Φι]λίστῃ[ς] Ἀργεῖ[ου]
50 [τρο]πῇ δὲ Κλειν[---]
[ˈH]ρακλεώτ[ης] Μητ[---]

I note only those variations which are significant.

Lines 1-4: the restorations are basically those of PP. 14-15: perhaps Νικήρατος (cf. D 4), but Νικήας is common in Chios. 16: perhaps Θεύδη[μος. An unpublished gravestone found near Daphnonas gives Ἐπαίνετος Θευδήμου (cf. C, I 7). 17: there may be a small part of a vertical stroke preserved, in which case perhaps Μητρόβ[ιος (cf. Studniczka, *AM* xiii (1888) no. 6). 18: probably Ἀσκληπι[άδης; other derivatives do not occur in Chios. 20-21: the reading in 21 is certain (against Zol.), therefore the restoration in 20. 22: cf. A, I 7 and 44, D 11. 24: probably Λαμπύριος (Λάμπυρις Ζηνοδότου occurs on a third-century gravestone; Zol., op. cit. no. PA', corrected). 26: the common Καυ[κασίωνος] or possibly Καυ[κάλου] (cf. Athen. 412b). 29: cf. Mavrogordato, *Num. Chron.* xviii (1918) 73-75 (later). 30: probably Ζηνοδ[ότου], cf. A, I 24 (Ζηνόδωρος does not occur in Chios). 33: no Chian name will fit, though a Σίλλης occurs on later coins (Mavrogordato, loc. cit.). 41: Λαμπραγόρας Φοίνικος (*Rev. Phil.* (3^{me} sér.) xi (1937) 322 l. 28) and Λαμπραγόρας Ζήνιος (Zol., op. cit. no. Z' line 61) are of about the right date. 42: Zol. reads Εὐρυδ[...], PP Εὐρυμ[...], but I cannot see any trace of a letter. 44: cf. A, I 7. 47-48: the two are probably of the same family, for a Φανῆς Δεινίου is *proxenos* of Aitolia in 214/13 B.C. (*IG* ix². 31. 154, cf. *IG* ii². 3778). Φαν[ῆς] can hardly be the *proxenos*, but Δεινίας may be his father. 52: Ἀγγ[ελῆς Ἀρ]τέ[μ]ωνος would fit, cf. *BCH* lvii (1933) 505 ff. 53:]ΗΛΥ[.]Ε PP. 54: perhaps Πε[ισαγόρα]ς, cf. A, I 25. Δ[ημ]οσθ[ένους] (PP) is impossible, Δι[ονυσ]ί[ου] too long, Δε[ιν]ί[ου] too short. Δι[αγό]ρο[υ] would fit. 55: probably Ἐρ[μόστρατ]ο[ς], cf. Mavrogordato, loc. cit. 57: [...].σ[.]ίδης Τιμοκρ[άτους] PP. 58: PP distinguish an *omicron* before the *nu*, but this may be a mark on the stone. Between the *nu* and the *sigma* there is room for one letter or possibly one letter and an *iota*. 59: cf. A, II 11. 62: Τ[ήλαρχο]ς or Τ[ιμοκλῆ]ς (cf. *Rev. Phil.*, loc. cit. line 22). The space after Πυθῶ is certainly blank, Πύθω[νος] (PP) therefore impossible. 65: perhaps Ἀγγελῆς Διο[σκούρι]δου, cf. Zol., op. cit. no. 1A', line 8.

1: so Zol. [Εὐμ]ολπ[ος] PP. 6: for [Τι]μόνακτος cf. *Rev. Phil.*, loc. cit. lines 27 and 31. But (against Zol. and PP) the *mu* is not certain and so, e.g., [Ἐπ]ίνακτος is possible (cf. *SGDI* 5658. 3). 8: PP interpret as a patronymic but this is not Chian. Better, therefore,]είο(υ). 12: [Πλά]τωνος would be too long; probably [Κρί]τωνος. 32: probably [Φι]λπ[εὺς]. 48: [Εὐκ]λῆς [- - -]μεῦς PP. 49: PP see only a few traces. 50: perhaps Κλειν[ομάχου], cf. PP, loc. cit. 221, no. 29 and *SIG*³ 959. 29. 51: Φιλίδης Τ[ε]ιμητ[- - -] PP.

The stone is almost certainly blank thereafter.

To allow for a symmetrical restoration of the prytanis' name and title (A 1) the stone must have been some 65 to 75 cm. wide, and, since the longest name on A occupies 35 cm., there would be room for two columns on this face (part of a second column is preserved towards the bottom of C). In C II and D each name takes up two lines and the same was presumably the case on the missing B. The texts of A and D are probably complete at the bottom and, in any case, the proportions of the stone suggest that little has been lost. Thus, to reconstruct, A I contained 62 names (or possibly a few more), A II about the same, B about 35, C I, where the letters are larger, about 60, C II, where the letters are again smaller, about 35, D 32; a total of not more than about 280 names.

The 62 names of A I are in the same hand and belong to the early third or perhaps the late fourth century. The next group, chronologically, are those at the bottom of C I, which can hardly be earlier than the end of the third century and may well be later, and appear to be in two hands (line 1 and lines 5-8), although the remaining letters are too few to allow certainty. C II and D belong to the second century, and here many different hands can be distinguished, in C II 1-8, 9-12, 45-58, D 5-6 (1-4 may be different, but I cannot be sure), 7-10, 11-14, 22-24 (perhaps), 25-26, 27-28, 31-33, and 47-51.

No certain identifications of the individuals can be made. But Kleukydes (A 7) may be the son of the Megareus who was one of the oligarchic prisoners taken for Alexander in 332,⁵⁸ Megares (A 44) therefore his grandson. The grandson of a man active in politics in the 330's is not likely to be enrolled in the Totteidai before about 310, more probably after 300. A slightly later date would be confirmed if we could identify 'Ηρόδοτος 'Ηροδότου (A 5), Λαμπραγόρας (A 41), and Οἰνοπίδης (A 61) with men of the same names in the large subscription lists of, I should say, the middle of the century,⁵⁹ and 'Ιππίας the father of Ἀργεῖος with 'Ιππίας the father of Πίνδαρος in one of the same lists.⁶⁰ The same 'Ιππίας may appear on coins of the late fourth century.⁶¹ Again, a date of about 200 B.C. for the earlier names on face C could be supported by the identification of Φιλώτας Ἀπολλωνίδου (C II 5-6) with the landowner of that name on the Attalos inscription (Zol., no. Γ', line 35).

The minimum interval, then, between the bottom of A I and the first surviving names of C I is about eighty years. The number of names that could be carried in the missing columns (A II, B, and the top of C I) is, at the most, 160. Thus the average addition per year cannot have been more than two.⁶² Now the language of the prescript suggests that the *stele* was designed to record the names of all the members of the group at the time (τοὺς ὄντας) and those who subsequently became members (τοὺς ἀγαγόντας τὰ γωγαῖα):⁶³ a block of names at once with smaller additions at intervals later, an arrangement such as in fact we have. How large

⁵⁸ Arrian iii. 2. 5. The name also occurs on the near-contemporary decree for the Naxian and Andrian judges, *SEG* xii. 390, l. 29.

⁵⁹ J. Vanseveren, *Rev. Phil.* (3^{me} sér.) xi (1937) 322, lines 28 and 33; Zolotas, 'Αθηνά xx (1908) no. Z', line 61. I read Οἰνοπίδης for Ζηνοβία in PP, no. 27, col. II, line 7. Mme Robert prefers a date towards the end of the century for these lists, but they are, I think, noticeably earlier than the Attalos inscr. Indeed, I should like to identify the Βιτῆς father of Θεόπροπος in the Attalos inscr. with the Βιτῆς son of 'Ηρακλεώτης in her list, l. 11. The name is a rare one. The tombstone of Θεόδοτος Φύρσου (*CIG* 2239b; her list, l. 8) belongs to the end of the century but this gives us only a *terminus ante quem* for the list. If Timolykos, grandfather of Ageges in Zol.'s list, l. 60, is the mint official of 330-300 (Mavrogordato, loc. cit.; another rare name), a date in the middle of the century would again be suitable.

⁶⁰ Vanseveren, loc. cit. l. 12.

⁶¹ For the date I am indebted to Mr. J. Boardman.

⁶² This is borne out at least for the second century by the grouping of the names on C and D. The number of names added at a time varies between 1 and 4 and averages exactly 2 (the average is the same whether one takes only those groups that are certainly complete (6 in number) or includes at their minimum those which may have been larger (11); it would, of course, be slightly higher if we had these complete). But with this range of numbers it is likely that in some years no additions would be made and the blank years would then bring the average down considerably. In C I 45-58 six names appear in the same hand, but they are set in three different groups (see text) which may then have been added in different years.

⁶³ On this phrase see Dunst, loc. cit.

could the group have been? If each year-class numbered, on an average, something less than two, the whole group could hardly number more than eighty. On the other hand the minimum membership *c.* 300 B.C. is fixed by the surviving names to sixty-two. The limits are fairly narrow and, I think, firm. We cannot therefore regard the body who set up this *stele* as the sum of the members of the thirteen units who appear on the lists 1 and 4. Five or six men do not make a unit. The Totteidai of this *stele*, then, are not the whole of the Totteidai, but only one section of them, a section no larger than is represented by *one* of the lists L-4. Even then the basic units will still be very small; each will contain about ten men. But at least we have reached a figure which might have some organizational meaning—the Chian army of the late fifth century was arranged in δεκάδες.⁶⁴

The conclusion becomes even more certain if we consider the implications of the alternative. If this *stele* is a register of all Totteidai, we must assume, firstly, that chance has preserved all the documents of the group, for it is inconceivable that they should have made up more than two sections; secondly, that a unit of five or six men could have some significance or that the *stele* carried not sixty-two but something more like 120 names of the same date, enough to cover both columns of face A. But in that case either the Totteidai failed to keep their records for about fifty years, or they suffered some sudden and inexplicable eclipse, to be followed by an equally surprising recovery. None of these assumptions recommends itself.

In conclusion, it is worth noting that there are obvious family connexions between several of the names on the list. To take only a few clear examples, Κλευκύδης Μεγαρέως and Μεγαρεῦς Κλευκύδους, Ἐμπεδος Ἰκεσίου and Ἰκέσιος Ἐμπέδου, Τήλεφος Φιλίσκου and Φίλισκος Τηλέφου must be fathers and sons; the two children of Διονυσίοι and Διοσκουρίδαι are probably brothers (all these are on Face A, col. I); while the recurrence of names like Φαινόμενος, Φερεκλῆς Ἀργεῖος and Ποσειδιππος points to the same conclusion. But this does not imply, of course, that kinship was the only criterion for membership.⁶⁵

APPENDIX B

The inscriptions of the Klytidai give us the names of some tribal (or phratry) officers. These have recently been discussed by Dr. Dunst,⁶⁶ and there is no need to consider them again. Other inscriptions give a few names, proper and generic, of groups who were or may have been part of the earlier system. I give a list of them here.

(1) The word φυλή occurs in the 'Constitution',⁶⁷ but there is no indication of their number. The existence of a board of officials called οἱ πεντεκαίδεκα is consistent with their being, but does not necessarily imply that they were, three or five.⁶⁸

(2) The word γένος occurs in *DGEEP* 695 (*SGDI* 5663) of the mid-fourth century, and again in what might be a technical sense in two imperial inscriptions. But this, as we have seen, is not significant.⁶⁹

(3) In an inscription of the third quarter of the fifth century there is a mention of a body called οἱ Καυκασεῖς.⁷⁰ The front face of this stone, previously obscured, can now be seen but is, unfortunately, very badly worn and I have been able to make out only a few letters of the prescript: [Ἐπ'] Ἀπελλῶ [πρυτάνεος Κ|αυ]κασέων γνῶμη ΝΦVΛΛ[.]Α[.]... ΗΞΑΝ στήσαι[.] (PLATE 50b.)

⁶⁴ Below, p. 188, and n. 73.

⁶⁵ Above, n. 25.

⁶⁶ Loc. cit.

⁶⁷ Jeffery, loc. cit.

⁶⁸ Jeffery, loc. cit., n. 1.

⁶⁹ Above, p. 178, and n. 27.

⁷⁰ Zolotas, Ἐφημερίς, Aug. 23rd, 1889 (= Haussoullier, *REG* iii (1890) 272) and Ἀθηνᾶ xx (1908) no. Δ' (2) (= *SGDI* 5654).

The body whose resolution is recorded here has been thought to be the people of the port of Kaukasa, and such indeed it may have been, though there is no evidence for any kind of 'deme' organization in Chios at any time. I should prefer to regard them as a gentilicial group who claimed to trace their descent from the mythical Kaukasos who, according to one tradition,⁷¹ accompanied Oinopion on his journey to Chios, in other words as a phratry or perhaps even a tribe.⁷²

(4) Oinopion himself may have been the ancestor of another similar body which we can perhaps read into another late fifth-century inscription concerned with a mass manumission of slaves:

Chios Museum (inv. no. 75). Two frags. making top right-hand corner of a *stele* of blue-grey Chian marble. H. 0.36 m. W. 0.22 m. Th. 0.115 m. Inscribed front, back, and right. Letters (prescript): 0.015 m. Interl. 0.003 m. *Stoichedon*, interax. 0.016 m.

Frg. 1: Zol., op. cit. 218-19, no. 1Γ'; PP, op. cit. 221, no. 30 with phot. fig. 6; L. Robert, *BCH* lix (1935) 453 ff. and *Études Épig.* 118 ff.; A. Salac, *Hlidka Archeologická* ix (1936) 22 ff., reported in *Phil. Woch.* 1937, 393, and *Eunomia* i (1939) 1 ff.

Frg. 2: Zol., loc. cit. (the stone, apparently, was then unbroken but his reading is totally inadequate).

[------]Σ[.....]
 [------]υλέων ι[.]π[.]
 [------]ψ]ῆφον θεμεν[.]
 [------]τας γράψαι πο-
 5 [------]ῆ] πόλις ἡλεο[θέ-]
 [ρωσεν--]εναι ὑπ' Οἶνο[π-]
 [------]ν οὐδέξ *vac.*
 κ.τ.λ.

Late fifth century.

Line 1: the *sigma* seems certain and may then be the end of the *prytanis*' name or title. But it should be noted that the stone must in that case have been cut down slightly at the top, since only the bottom of the *sigma* remains, and that the vertical stroke which PP record after it cannot be part of a *pi* or of any other letter, unless the spacing of line 1 was eccentric. 2: ΥΛΕΩΝΙ PP. The last letter may be a misplaced *iota*, but is more probably a *pi*, *gamma*, or *nu*. *Kappa* (Zol.) seems unlikely, but since he had the complete stone before him we must allow the possibility. 5: Robert's restoration; the *omicron* was read by Zol. but has now disappeared. 6: the second *iota* is misplaced but certain.

After Robert's discussion nothing need be said about the list of slave-names which follows the text or of the historical background. These names, arranged in δεκάδες,⁷³ appear in a single column with traces of a second column to the right. This means that the stone must have been at least twice, perhaps even three times, its present width.⁷⁴ Thus restoration can hardly be profitable, but the general sense of the text is clear enough. We are concerned with the enrolment in some body or bodies of slaves whom the city has set free.

⁷¹ N. M. Kontoleon, *Rev. Phil.* (3^{me} sér.) xxiii (1949) 1 ff.

⁷² The reading is so doubtful that it is pointless to discuss restorations, but it is at least possible that we should divide γνώμην φυλαγ[.]; in which case we have perhaps a tribal decree.

⁷³ On these units see Robert, op. cit.

⁷⁴ Salac has been misled by PP's description and his restorations are therefore worthless. For a similar document see now Dunant and Pouilloux, *Thasos* ii (1958) 35-36.

In line 6 Οἶνο[- - must be read as the beginning of a proper name, perhaps that of an individual, but more probably, I think, the name of one of the enrolling bodies, Οἶνοπίδαι, a tribe or phratry. If there was only one such body, the number of the new members (eighty at least must have appeared on the *stele*) makes it almost certain that they were a tribe.

In line 2 the rediscovery of the second fragment makes Robert's suggestion, that ΛΕΩΝΙ is the beginning of a proper name, improbable, for I know of no name that would fit the gap.⁷⁵ The alternatives are: (1) that]υλέω is the end of a name in the genitive singular. Such names are rare, but e.g. [Σταφ]υλέω would do;⁷⁶ (2) that]υλέων is the end of a name in the genitive plural, e.g. [Σταφ]υλέων, another gentilicial group which would trace its origin back to a character in the Oinopion myth;⁷⁷ (3) that]υλέων is the end of a noun in the genitive plural, in which case certainly [φ]υλέων, a restoration which would strengthen my suggestion that Οἶνο[conceals a tribal name.

(5) In an inscription of the early fourth century published by Evangelides, *ADelt* xi (1927-8) parart. 23, I read [- - -|. .] αλτ[έω]ν ἄ|πὸ τῆς τρίτ|ης στήλης ἔ|χρι κ.τ.λ. The -αλτεῖς will be the owners of the land marked by this *horos*, perhaps a gentilicial body.

(6) The *gene* whose names appear in the Attalos inscription have already been mentioned.⁷⁸ Several local names, in this inscription and others, apart from the Ἀ[.]μητίδαι Λευκώνιοι (above, n. 16), have no doubt a similar origin; they are Εὐρυπυλίδαι, Κυβωνίδαι, Καρίδαι, and Εὐάδαι.⁷⁹

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⁷⁵ Equally the *upsilon* before the *lambda* is at this date decisive against it.

⁷⁶ The form Σταφυλῆς does not occur in Chios; Σταφυλος was common.

⁷⁷ Kontoleon, loc. cit.

⁷⁸ Above, pp. 175 f. and n. 16.

⁷⁹ Εὐάδαι *DGEPP* 688; the others in the Attalos inscr. Cf. Guarducci, op. cit.

APOLLO DELIOS

(PLATE 51a)

THE fragment which I publish here by the kind permission of Dr. J. Papademetriou lies in the courtyard of the Piraeus Museum. Of its origins nothing can be said. It does not appear in the Museum inventory, and all that can be affirmed for certain is that it was already in the Museum in January 1937, when Mr. J. G. Griffith made a squeeze which is now in the Ashmolean Museum. This squeeze besides its chronological value is also helpful, in that it shows rather more than can now be read on the stone.¹

Fragment of Pentelic marble with left-hand edge and original rough-picked back preserved. Height: 0.352 m.; width: 0.349 m.; thickness: 0.152 m. Uninscribed left margin of 0.026 m. Uninscribed space below last line of at least 0.110 m. Cut with two chisels of 10 mm. and 6 mm., the smaller being employed for the cross-bars of *epsilon*, *alpha*, and the aspirate, the horizontal and right vertical of *pi*, and all three strokes of *upsilon* and *sigma*. Horizontal chequer: 0.0137 m.; vertical chequer: 0.0194 m. (PLATE 51a).

...νο...5...ΣΤΙΟΞ
 ...1 τῇ ἀγορᾷ τῇ εβ[- - - - -περ]
 ἰττον περὶ τῆς ἐπάρχης[- - - - -ἐπισκ]
 εὐὲν τῷ ἱερῷ τὸς ΔΕΛ[- - - - -]
 5 [... ἱε]ρὸν ἄλλο ἔ ἐς το[- - - - -]
 [. ἡο γραμ]ματεὺς ἡο τῆς [βολῆς - - - - - ἡοι]
 [δὲ πολετα]ὶ ἀπομισθοσ[άντων
vacat

Line 1 is read entirely from the stone, the squeeze not being adequate at this point.

Line 2. The last visible cutting is part of a horizontal on the bottom line. Of the letter before I can now only see the vertical and the start of a stroke from the bottom of the vertical. The squeeze shows a complete and certain *beta*.

Line 4. The last *iota* is uncertain, but any other letter would show some trace.

Line 6. The *alpha* and the last two letters are only on the squeeze.

Line 7. The *theta* is only on the squeeze.

That we have the end of an Attic decree from the last forty years of the fifth century needs no demonstration. The neat hand seems to me to belong around 430. *IG* i². 97, now dated by Meritt² in the opening years of the Archidamian War, appears to show the same hand working with less space at his disposal; the prescript of the Leontini treaty of 433-2 (*IG* i². 52) has him with plenty of space to spare. *IG* i². 53, of which the date and purport have been much disputed,³ is also very close.

We have some kind of public regulation of a cult, its *hieron* and its *eparche*. Line 2 is a puzzle. I can think of no solution, if we take the phrase following τῇ ἀγορᾷ together with it. The only solution which suggests itself to me is to take it as τῇ ἐβδ[ομῇ] with an omitted aspirate. This

¹ I am grateful to Prof. H. T. Wade-Gery for reading a first draught.

² *Studies presented to D. M. Robinson* ii. 298 ff. Treu's

objections (*Historia* iii. 58) are based on dogma, not on the text. Neither considers the lettering.

³ See *SEG* x. 46, xiii. 9, and my note, *BSA* xlix (1954) 25 n. 27.

ought to be a date. The seventh day implies Apollo.⁴ Apollo in this neighbourhood will be Apollo Delios at Phaleron,⁵ and that we may be on the right track is suggested by line 4. For if we start a new sentence after ἱερῶ , and divide τὸς δὲ λι we shall have to restore something like λι[μενοφύλακας] and these are unknown in Attica.⁶ τὸς Δελί[ος] is rather more hopeful.⁷ Finally, lines 6–7 will suggest a line-length of about sixty letters if $\text{ῥοι δὲ κολακρέται δόντον τὸ ἄργύριον}$ follows the *poletai*-clause in the normal way, of about ninety letters, if it precedes it as in *IG* i². 73. 21–23. But a ninety-letter line would give the stele a width of well over a metre, which is unlikely in the extreme, and the shorter line is much more plausible.

On this fragment alone, one could hardly go farther. But it is worth noting that fifth-century decrees from Piraeus or Phaleron are not common, and that *IG* i². 128, which is now lost, corresponds with our fragment in several respects. It has a line of fifty-two letters plus the space required for the name of the secretary, and, if the word θεοί was laid out symmetrically in line 1, it would have sixty. Its aspiration is inconsistent. It deals with the regulation of the cult of a male god and of its finances and with the building of his *hieron*. It was found between Zea and Mounichia, but this is not far for a stone from Phaleron to move in a sea-port. That its conventional date is *ante a.* 428–7 has no probative value, for, as Hiller pointed out, nothing can be built on the name Lysikles. Nevertheless, the resemblances between it and our new fragment are striking enough to make it extremely tempting to take them as parts of the same document.

The last discussion of *IG* i². 128 is by Schlaifer in *HarvSt.* li (1940). His *exempli gratia* restorations are unfortunately not given in *SEG* x, and I reprint them here for ease of reference:

ΣΤ. 57

ἔδοχσεν τῇ βολῇ καὶ τῷ δέμοι. Ἄντ[ιοχίς ἐπρυτάνευε, . . . 5 . . . ἔγραμμάτ]
 ευε, Στράτον ἐπεστάτει, Λυσικλῆς εἶπ[ε 25 ἔ]
 παιδὲ χσμβάλλονται οἱ ναύκληροι [καὶ ἔμποροι οἱ ἐμ Περαιεὶ μίαν δρᾶ]
 χμὲν ἕκαστος ἀπὸ τῷ πλοίῳ ὅπος ἂν τῷ [Διὸς τῷ Σοτέρῳ τὸ ἐμ Περαιεὶ ἱερῷ]
 ν σὼν ἔι τῷ θεοῖ [κτλ].

This seems to me hardly satisfactory. Besides minor stylistic faults, it leaves τῷ πλοίῳ quite unexplained and subordinates ὅπος ἂν , so common in Attic preambles as a justification, in an extremely unusual way. I offer here a combined text of both fragments, with due reserve.

θ	ε	[ο	ί]
	ἔδοχσεν τῇ βολῇ καὶ τ[οῖ] δέμοι, Ἄντ[ιοχίς ἐπρυτάνευε, . . . 8 . . . ἔγραμμάτ]		
	ευε, Στράτον ἐπεστάτει, Λυσ[ι]κλῆς εἶπ[ε· τῷ Ἀπόλλωνι τῷ Δελίοι θῦσαι, καὶ ἐ]		
	παιδὲ χσμβάλλονται οἱ ναύκληροι [ῥοι παρὰ τὸ Φάλερον ἱορμιζόμενοι δρᾶ]		
5	χμὲν ἕκαστος ἀπὸ τῷ πλοίῳ, ὅπος ἂν τὸ [ἀργύριον τὸ ἀπὸ τῶν δραχμῶν γενόμενον]		
	ν σὼν ἔι τῷ θεοῖ, ἀποδιδόσθον οἱ π[ολεταὶ τὸ τῆς δραχμῆς τέλος ἐπὶ τῆς πεμπτ]		
	[τῆ]ς πρυτανείας ὅταμπερ τὸ τῶν ἀπα[ρχῶν τέλος μισθῶσι· δῶναι δ' ἐς τὴν οἶκον]		
	[ομ]ίαν δημοσίαι μὲν μεχρὶ πεντακο[σίον δραχμῶν, ἰδία δὲ κατὰ δύναμιν· τὸ δ]		
	[ἔ ἱερ]ὸν ποιῆσαι ὅς κάλλιστον, προσ[καλέσθω δὲ πρὸς τὴν βολὴν καὶ ἐς τὸν δῆμ]		
10	[ον ὁ νῦ]ν ἀρχιτέκτον καὶ ἐπισκευαζ[έτο]		

⁴ Nilsson, *Primitive Time Reckoning* 333, 366.

⁵ *IG* i². 310. 218–19.

⁶ The λιμενόφρουρος of *IG* ii². 133.23 has been disposed of (Wilhelm, *Anz. Wien.* 1947, 196).

⁷ One should, however, bear in mind Meisterhans's warning about the article with plural ethnics (*GAI*³ 120 n. 12).

[...6...] ταύτ[ην ἰό]πος [ἄ]ν γίγνεται ἐ[
 [.....17.....]μον οἱ ἄν ὅσι τ[
 [.....16.....γ]ενόμενον καὶ [
 [.....18.....]εον ἰόπος ἄν [
 15 [.....18.....]ρνε[

lacuna

Fragment *b*

...νο...5...ΣΤΩΕ[.....24..... καὶ τοῖ Ἀπόλλωνι θύεν Φαλε]
 [ρῶ]ι τῇ ἀγορᾷ τῇ ἐβδ[ομῇ τῷ μενὸς11.... ἔαν δὲ τίς τι πράττει περ]
 ιττόν περὶ τῆς ἐπαρχῆς[ς, μὲν ἄποτινέτο· χσυμβάλλεσθαι δὲ καὶ ἐς τὴν ἐπισκ]
 εὐὲν τῷ ἱερῷ τὸς Δελί[ος ἔαν θέλοσι· καὶ μὲ ἔναι χρῆσθαι τοῖδε τοῖ ἀργυρίο]
 5 [ι ἐς ἱε]ρόν ἄλλο ἔ ἐς τὸ [Ἀπόλλωνος τὸ Φαλεροῖ· τὸ δὲ φσέφισμα τόδε ἀναγράφσ]
 [ας ὁ γραμ]ματεὺς ἰο τῆς [βολῆς ἐν στέλει λιθινῇ καταθέτο ἐν τοῖ ἱερῷ· τοῖ]
 [δὲ πολετα]ῖ ἀπομισθοσ[άντον· τοῖ δὲ κολακρέται δόντον τὸ ἀργύριον. *vacat*]

vacat

RESTORATIONS AND COMMENTARY

Line 3. Straton as *epistates* of the *prytaneis* must be from Antiochis (*PA* 12971). The only others of this name which I know from this tribe are *PA* 12977, 12982, and, much later, 12995.

My restoration for the opening of the decree is hardly certain, but such decrees must have the god in the first clause; cf. *IG* i². 76, 78, 94, 127 (*SEG* x. 59). Once he is there, this is the most likely thing to be done for him. One would expect a reason to be given for the sacrifice as in i². 78, but there may be a motive for its absence, as we shall see.

Line 4. It is hardly necessary to refute once again the supposition that the *naukleroi* are a *collegium*. See, besides the references in the *editio minor*, Francotte, *L'Industrie dans la Grèce ancienne* ii. 207.

My restoration for the rest of the line is modelled on that worked out by Wilhelm for the Sounion decree (*SEG* x. 10 Addenda, lines 16–17) and that decree makes it clear what is wanted here. For Schlaifer's restoration does not make it clear how often a ship has to pay the drachma, and the procedures operating at Sounion and Phaleron are clearly parallel.

Line 5. Schlaifer, misled by the Corpus restoration [ἱερόν], says 'The lacuna certainly contained the name of the deity whose hieron was in question' and, not surprisingly, has trouble with his word-order. I prefer to model on *IG* ii². 1172. 14, 1174. 1–2. I have taken τὸν δραχμῶν from Wade-Gery, preferring it to my τῆς ἐπαρχῆς, borrowed from fragment *b*, line 3. I doubt the possibility of distinguishing between ἐπαρχή and ἀπαρχή, but it is probably better not to bring them into too close conjunction.

Lines 6–7. The Corpus restores τέλος doubtfully, but surely correctly. Cf., for example, Dem. xxiv. 144, Aeschines i. 119, *Hesperia* v (1936) no. 10, p. 401, lines 134, 142.

[πεμπτῆ]ς is, of course, only restored because it fits my length of line, which [ἐβδόμ]ς and [δεκάτ]ς would also do, but I do not see the ground of the Corpus restoration [πρότ]ς. For even the *Athenaion Politeia*, our fullest account of the *poletai*, does not commit them to selling concessions in any prytany in particular. *IG* i². 94 (ninth prytany) is good enough evidence to suggest that concessions might be sold at any time, and the fourth-century *poletai*-records make it clear that they were in fact so sold. I select [πεμπτῆ]ς because it gives the concessionaires time to organize themselves at the end of a sailing-season well before the next begins, but there could be no objection to [ἐβδόμ]ς.

Lines 7–8. The only real alternative to [οἰκοδομ]ίαν seems to me to be [θυσ]ίαν, and *IG* i². 78. 6 ff., where the *epistatai* spend μεχ[ρι μνᾶς] on a sacrifice and citizens not less than a drachma, i². 79 with its elaborate contribution-scale, and *SEG* x. 64a. 35 are attractive parallels. But, if we follow them, the sacrifice is too soon over with no arrangements about the distribution of the meat or of the skins, and the building of the *hieron* begins too abruptly. 500 drachmai is admittedly not much for a state-contribution to a *hieron*, but we do not know how big the shrine was to be.

[κατὰ δύναμιν]. No epigraphical parallels that I know in this sort of context, but cf. i². 6. 29–30 κατὰ τὴν δύνα[μιν], and the sense is clearly what is required.

Line 12. [οἱ δέμαρχοι τῶν δέ]μον οἱ ἄν ὄσι τ[ότε?]

Fragment *b*, line 3. [περ]ιττόν. Nowhere else in Attic inscriptions that I know, except, I suspect, in i². 107. 8, where we should restore something like [μὲ πρ]άττειν περιτ[τόν].

Lines 4–5. The general sense is clear if we bear in mind the second Decree of Kallias (*ATL* ii, D 2. 12 ff.). I must confess that I would prefer ἐς τὸ[το ἀνεῦ τῆς βολῆς καὶ τὸ δέμο] (cf. i². 76.56), but see no way to fit it in.

It would be of importance to group all the fifth-century Athenian decrees where a private cult is taken over and regulated by the state, but while we still lack Raubitschek's commentary to his reconstruction of the Anakes-decree (*IG* i². 127; *SEG* x. 59) and the detailed justification of his redating to around 412 of the Bendis-decree, it is hardly possible. Meanwhile, we have Schlaifer,⁸ who seems to me to be excellent on Theseus and Asklepios, and Ferguson⁹ and Nilsson¹⁰ on Bendis. Some thought should also be devoted to the Sounion-decree (*SEG* x. 10), although it will not take us far, and above all to the Eleusis-decree (*IG* i². 6; *SEG* x. 6), though this again will be handicapped until the related fourth-century decree¹¹ is available for study.

To confine ourselves to the decree before us, it would appear that the state for some reason decides to take an interest in the cult of a god, whom I have suggested to be Apollō Delios. There is already an informal cult, and shipowners contribute a voluntary levy to it. The collection of this levy is now put under the public supervision of the *poletai*. Though we have no information from the decree as to who is put in charge of the fund thus accumulated, the control of the property of Apollo Delios rests in the hands of the Treasurers of the Other Gods in 429/8¹² and they probably make loans from it in 423/2. There are two unidentified Apollos in the logistai-inscription at *SEG* x. 227. 68–69, 71–72. Lines 68–69 could be restored Ἀπόλλων[ος Δελίο] [ΠΗΗ|ΠΙΙΙ], τοῦτο τόκος Π ἑ ἑ ἑ, but really all that is certain is that one of these two should be Apollo Delios.¹³

A shrine is to be built, largely, presumably, from voluntary subscriptions, but the state will make up the amount by up to 500 drachmai, and will provide a state-architect to conduct the work. The lacuna may have contained the provisions for regular sacrifices, which seem to be in question at the beginning of fragment *b*. The decree ends with penalties for mishandling the *eparche*, a provision that the people of Delos shall be allowed (and probably encouraged) to subscribe to the shrine, and a warning against using the building-fund (or the Delian contribution to it?) for any other shrine. The normal publication-formulae follow.

What is the occasion of this decree? The passage in *IG* i². 310 is fair evidence for the existence

⁸ *HarvSt* li (1940) 233 ff.

⁹ *Hesperia* suppl. viii. 131 ff., particularly 142, 157 ff.

¹⁰ *Cults, Myths, Oracles and Politics* 45 ff.

¹¹ Schweigert, *AJA* li (1946) 287 ff. (Now *Hesperia* xxvi. 52, no. 9.) See also *SEG* xvii. 2.

¹² *IG* i². 310. 218–19.

¹³ Compare also *IG* i². 94, where the *apodektai* are to pay receipts belonging to Kodros, Neleus, and Basile to the Treasurers of the Other Gods κατὰ τὸν νόμον. What law? Not, I think, the law about *temene* (ibid. line 25), because this might involve Athena's property too. Rather, I suspect, the first Kallias Decree (*ATL* ii, D 1. 24–27).

of an organized cult of Apollo Delios in 429/8. That our inscription is earlier than this, but not by much, is suggested by our observations of its cutting-style. One hardly has to look far for an occasion for the Athenians to appease Apollo Delios, and that appeasement may be in question is suggested by my restoration of line 3. If one sacrifices without saying why, the reason may be too ill-omened to mention. At the beginning of the Peloponnesian War, Thucydides (ii. 8. 3) says ἔτι δὲ Δῆλος ἐκινήθη ὀλίγον πρὸ τούτων, πρότερον οὐπω σεισθεῖσα ἅφ' οὗ Ἕλληνες μέμνηνται· ἐλέγετο δὲ καὶ ἐδόκει ἐπὶ τοῖς μέλλουσι γενήσεσθαι σημήναι. I would have thought that, if Thucydides says ὀλίγον, he means it, and it was probably within the year. Nor would anyone have thought anything else, had not Herodotus (vi. 98. 1) mentioned at some length an earthquake in Delos in 490 καὶ πρῶτα καὶ ὕστατα μέχρι ἐμεῦ. To straddle and suppose that there was only one earthquake, in 460, and that both Herodotus and Thucydides were foolishly mistaken, as How and Wells do, is hardly a satisfactory solution. The simplest solution is that Herodotus wrote this passage before 432,¹⁴ but believed in a 490 earthquake. Thucydides for some reason did not and says so with customary indirectness.¹⁵

With the war close at hand, Apollo Delios needed appeasement and the state took over his cult at Phaleron. But with the Perikles-Kallias economy régime in force, the placatory shrine had to be a cheap one. Closer dating is hardly possible. If we are within 432/1, Antiochis can have held the first, second, or seventh prytanies,¹⁶ but if I am right in allowing eight letters for the secretary's name, the first prytany is ruled out, since the first secretary of 432/1 had nine letters.¹⁷ With this approximate date the proposer Lysikles may be Aspasia's husband, the general of 428/7, but this is still no more than a possibility.

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¹⁴ The view that this is a late stretch of Herodotus depends on an unnecessary interpretation of vi. 91. 1, for clearly the expulsion of the παχέες and not of all Aeginetans is in question there, and this may have happened long before 431.

¹⁵ He need not be correcting Herodotus, but must, I think, be correcting somebody. Not so Gomme, *ad loc.*, and *Essays* 122, n. 2.

¹⁶ Meritt, *Athenian Financial Documents* 71-89.

¹⁷ *Ibid.* line 3.

DELPHICA¹

(PLATE 51b)

ONE of the most arresting natural features at Delphi is the great rock pulpit² which projects between the ruins of the *Bouleuterion* and the terrace walls supporting Apollo's temple (PLATE 51b). It is rent on its southern side by a large fissure up which was hewn a flight of still discernible steps. The area in which it stands is of more than ordinary interest, as being identifiable with τὸ τᾶς Γᾶς ἱερόν³ mentioned in a Delphic inscription dating from the fourth century B.C. On the rock itself the Sibyl, variously identified, was said to have sat (or stood) and prophesied. Yet most modern Delphic historians, while devoting much space to the Pythia, and to the obscure details of the oracle's mechanism, either have tended to ignore the Sibyl altogether, or have dismissed her from serious consideration with a few brief words as an unimportant late-comer.⁴ Some⁵ indeed have come near to identifying her with the Pythia. One⁶ actually did.

In fact the Sibylline tradition ascends in the literary sources at least as far as Herakleides Pontikos⁷ (and presumably the elder of that name, as the younger is only known to us as a writer of learned poetry), who quoted the lines which the prophetess sang on her arrival at Delphi:

ὦ Δελφοί, θεράποντες ἐκηβόλου Ἀπόλλωνος,
ἦλθον ἐγὼ χρήσουσα Διὸς νοὸν αἰγιόχοιο
αὐτοκασιγνήτῳ κεκολωμένη Ἀπόλλωνι.

She was, according to him, the Phrygian Sibyl, who was also identified with Artemis. Chrysippos⁸ too is said to have referred to the Delphic Sibyl in a work περὶ μαντικῆς, but to have supported the view that her origins were local.

Plutarch preserves a similar tradition, and being himself a member of the Delphic priesthood was likely to be familiar with the legends still current at the time. In *De Pythiae oraculis*⁹ the *dramatis personae* are engaged in conducting a young stranger round Delphi. In due course they arrive at the rock κατὰ τὸ βουλευτήριον ἐφ' ἧς λέγεται καθίζεσθαι τὴν πρώτην Σίβυλλαν τοῦ Ἑλικῶνος παραγενομένην, ὑπὸ τῶν Μουσῶν τραφεῖσαν (ἐνιοὶ δέ φασιν ἐκ Μαλιέων ἀφικέσθαι Λαμίας οὔσαν θυγατέρα τῆς Ποσειδῶνος). At this point one of the speakers interrupts to quote a mystical rigmarole which does not concern us here.

Pausanias¹⁰ repeats the same legend, with one or two variations, and adds a number of interesting details: πέτρα δέ ἐστιν ἀνίσχουσα ὑπὲρ τῆς γῆς· ἐπὶ ταύτῃ Δελφοὶ στᾶσάν φασιν ἄσαι τοὺς χρησμούς [γυναῖκα] ὄνομα Ἡροφίλην, Σίβυλλαν δὲ ἐπὶ κλησιν. But Herophile was not the first Sibyl according to the tradition quoted by Pausanias, though she was born before the Trojan War, and foretold among other prophecies the doom of Ilion. According to some verses preserved by the Delians she identified herself with Artemis, and sometimes describes herself

¹ I would like to acknowledge here the debt which I owe to Dr. L. H. Jeffery and Mr. W. G. Forrest for their valuable criticism and advice; to Messrs. G. Huxley and B. R. I. Sealey for generously drawing my attention to much important material; to Professor H. J. Rose for reading the article in its original form, and giving me, as always, the benefit of his unrivalled scholarship; and finally, and not least, to Mr. W. F. Jackson Knight who first roused my interest in the Sibyl.

² The identity of the rock was established by Homolle, *BCH* xvii. 613, and has not been challenged.

³ *FD* iii. 5, 25, col. iii, A, 1, 3, 4.

⁴ Cf., for example, Parke and Wormell, *The Delphic Oracle* i. 13.

⁵ E.g. L. B. Holland, *AJA* xxxvii (1933) 201, who describes the Pythia loosely as a 'sibyl'.

⁶ Bergk, *Griech. Lit.* i. 342 and n. 90, refuted by Rohde, *Psyche* n. 64 to ch. ix (Eng. ed.).

⁷ *FHG* ii. 197. Clem. Alex. *Strom.* i. 139, 48.

⁸ *Stoic. vet. frg.* ii. 348 (nr. 1216) Arnim = Varro ap. Lactant. *Div. inst.* i. 6, 9.

⁹ 398c.

¹⁰ x. 12.

as the daughter of a man and a nymph of Ida, and as hailing originally from Marpessos in the Troad. In support of this tradition the inhabitants of Trojan Alexandria record that she kept the temple of Sminthian Apollo. Nevertheless, she passed most of her life in Samos, but also visited Klaros, Delos, and Delphi. But she returned to the Troad to die and her elegy is preserved. The Erythraeans also claimed her, stating that she was born in a cave near their city, and that she was the daughter of a local shepherd and a nymph. It was in fact the earliest Sibyl so called by the Libyans, who was the daughter of Lamia, Poseidon's daughter, and Zeus. The next Sibyls in order of seniority were Demo of Kyme, and Sabbe who prophesied to the Hebrews and was also called the Babylonian or Egyptian Sibyl. None of these, however, came to Delphi.

The later lists¹¹ of Sibyls invariably include the Delphic prophetess, but add no material details to the foregoing accounts. The problem is to get behind the syncretistic accounts of later times, and attempt to discover what the term Σίβυλλα signified to the earlier authorities, and when and why the Sibylline tradition reached Delphi.

The earliest mention of Σίβυλλα without local reference occurs in a quotation by Plutarch¹² from Herakleitos: Σίβυλλα δὲ μαινομένῳ στόματι, καθ' Ἡράκλειτον, ἀγέλαστα καὶ ἀκαλλώπιστα καὶ ἀμύριστα φθεγγομένη, χιλίων ἑτῶν ἐξικνεῖται τῇ φωνῇ διὰ τὸν θεόν. Of these words only Σίβυλλα . . . φθεγγομένη have been thought to be Herakleitos' own.¹³ But there is nothing intrinsically improbable about the philosopher's having added the rest, as its blatant mysticism is precisely in his vein.

The quotation gives us a *terminus ante quem* for the Sibyl, but that is all. The context in which the quotation occurs does not help. It is admittedly Delphic, but no special emphasis need be laid on this, as the speaker in the dialogue is merely reminded of the grim power of Sibylline prophecy during a general discussion of the merits, *vis-à-vis* the charm of Sappho's poetry, of the Pythia's plain approach.

Aristophanes mentions the Sibyl twice in the *Peace*.¹⁴ The quack prophet appeals to her authority along with that of the equally nebulous Bakis. But nothing is to be gleaned from this except the interesting fact that Sibylline oracles were current at the end of the fifth century B.C.

Plato in the *Phaidros*¹⁵ mentions both the Pythia and Sibyl as typical examples of prophetesses inspired by divine madness. In other words, whether rightly or wrongly, he clearly regarded the possession of the Pythia and the Sibyl as being of a like nature, and this seems to have been the prevalent ancient view. But too little is known about the actual details of Pythian prophecy to be sure what part emotion played in the ritual. Probably seances varied according to the temperament of the Pythia operating at the time. Plutarch¹⁶ quotes the case of a woman who became so overwrought when forced to prophesy against her will that she scared not only those who had come to consult her, but the officiating προφήτης too. After attempting to escape from the ἄδυτον she calmed, but only survived for a few days. This passage suggests that on occasion a Pythian seance was a somewhat less prosaic matter than some modern authorities¹⁷ would have us believe. Again, arguments¹⁸ based on vase paintings seem less cogent in view of the classic restraint of fifth-century art. There must in fact have been some element of μανία in Pythian prophecy to cause Plato to associate the Pythia with the Sibyl, and Plutarch to mention them both in the same context. The possibility too of Dionysiac¹⁹ influence cannot be entirely dismissed.

¹¹ Cf. Maass, *De Sibyllarum Indicibus* 36 ff.

¹² *De Pyth. Orac.* 397a.

¹³ Cf. Rohde, loc. cit.

¹⁴ 1095, 1116.

¹⁵ 244d.

¹⁶ *De defect. or.* 438a.

¹⁷ E.g. Amandry, *La Mantique apollinienne à Delphes* 42 ff.

¹⁸ Cf. Amandry, op. cit. 193.

¹⁹ Cf. Amandry, op. cit. 42.

The only other references to the Sibyl in the earlier and more respectable authorities occur in the pseudo-Platonic Theages,²⁰ and in Aristotle.²¹ In both she is coupled somewhat contemptuously with Bakis as the typical prophetess of fiction.

It is certainly significant that Pausanias always speaks of the Sibyl in the singular when quoting her actual oracles. From this circumstance Maass²² argued with probability that the periegete's general Sibylline *excursus* was derived from some other authority. This he supposed was Alexander Polyhistor, who derived in turn from Demetrios of Skepsis. The latter, who hailed from the Troad, could have been responsible for the spread of the tradition that the Erythraean Sibyl had really come from Marpessos. However that may be, and arguments²³ have been advanced against Maass's view, the Marpessian Sibyl does not appear to be strongly supported. True, the neighbouring town of Gergis²⁴ claimed to possess her tomb, and displayed her likeness on its coinage,²⁵ but Herakleides' statement²⁶ that she flourished as recently as the times of Solon and Kyros cannot be taken seriously.

The tendency of most of the older or more reputable authorities to speak of the Sibyl in general terms without local reference is remarkable in view of Euripides' mention²⁷ of the Libyan Sibyl in the prologue to his *Lamia*. She was, of course, Lamia's daughter according to Pausanias,²⁸ and moreover the senior Sibyl. Though her tradition is otherwise obscure, there seems no reason to doubt its antiquity. Herakleides Pontikos²⁹ is our first firm authority for pluralization, but it seems clear that the phenomenon was old. Indeed, while Herakleides distinguished the Erythraean, Phrygian, and Hellespontic (i.e. the Marpessian) Sibyls, Eratosthenes³⁰ seems to have good ancient authority for the Sibyl of Samos. The Erythraean claim too was supported by a certain Apollodoros Erythraios,³¹ who seems to have antedated Eratosthenes.³²

Assuming that some at least of these Sibyls had claim to validity, it is difficult to resist the conclusion that by Herakleitos' time the term Σίβυλλα had become generalized, and obscured the fame of the local Sibyls. Now it is clear that repluralization took place in late classical times, and that new Sibyls were added to the lists. The Delphic was one of these, but there are reasons for supposing that her tradition may have been older. The problem is to try and discover which of the older Sibylline traditions was originally adopted at Delphi, and when this event took place.

The prestige value of such a tradition is obvious. The Sibyl was inspired by a god,³³ or at any rate by some uncanny power or other, and her fame was such that the Delphic priesthood could not afford to ignore it. Hence the story arose that the Sibyl had prophesied at all the famous Apolline cult centres everywhere. That all notable prophets inevitably owed their powers to Apollo was always a central dogma of Delphic propaganda,³⁴ so that even chthonian heroes like Amphiaraios³⁵ and Asklepios were said to have been his sons. He could delegate his powers on occasion,³⁶ but the gift of prophecy remained exclusively his. Similarly the story that Manto,³⁷ Teiresias' daughter, who was herself identified with the Thessalian Sibyl,³⁸ went to

²⁰ 124d.

²¹ *Prob.* 30, 1. 954a.

²² *Op. cit.* p. 23.

²³ Cf. Frazer *ad* Paus. x. 12, 1; Buchholz in Roscher, *Myth. Lex.* iv. 793; Rzach in *R.E.* s.v. Sibyllen, 2082-3.

²⁴ Strabo 604, 616.

²⁵ Phlegon, *Olymp.* frg. 2. *FGH* iii. 604.

²⁶ Frg. 97 Voss. Varro *ap.* Lactant. *op. cit.* 1. 6, 12.

²⁷ Varro *ap.* Lactant. *op. cit.* 1. 6, 8.

²⁸ x. 12.

²⁹ Clem. Alex. *Strom.* i. 108, 3.

³⁰ Lactant. *op. cit.* i. 6, 9.

³¹ *FGH* iv. 309; Lactant. *ibid.*

³² Cf. Maass, *op. cit.* 60.

³³ Herakleitos *ap.* Plut. (n. 12), διὰ τὸν θεόν.

³⁴ Cf. Bouché-Leclercq, *Hist. de la Div.* i. 351.

³⁵ Cf. Guthrie, *The Greeks and their Gods* 204.

³⁶ *Hymn to Hermes* 564 f.

³⁷ Paus. vii. 3; Schol. Ap. Rhod. i. 308. The story, as Mr. Huxley reminds me, may be as old as Antimachos of Teos.

³⁸ Suidas *sub* Σ. Θετταλή.

Kolophon (where there was also a Sibyl)³⁹ after being taken as a prisoner to Delphi by the Argives, owed much to propaganda.

Now the introduction of the Sibylline tradition probably happened at some vital point in Delphic history. Hitherto it has been assumed that it was during the period of the oracle's decline.⁴⁰ But there are some reasons for supposing that it was rather during the critical period of its rise to fame. For this we must turn to the era of Greek colonial expansion, and the foundation of Italian Kyme in the middle of the eighth century B.C.

Kyme was founded as a joint venture by Chalkis and Aeolian Kyme.⁴¹ The date of its foundation is firmly fixed on archaeological grounds,⁴² which is more than may be said for the conflict or series of conflicts which succeeded it, and which are comprehensively styled the Lelantine War. Whatever the precise nature of that obscure and much debated⁴³ struggle, Chalkis appears at some stage to have been aligned with Samos⁴⁴ and possibly, by implication, Erythrai, against her rivals. Now, curiously enough, both Erythrai and Samos were associated with Sibyls, and Sibyls, moreover, so well authenticated that Maass⁴⁵ at least was prepared to acknowledge no others.

Whatever the facts about the Samian Sibyl, whom Eusebios⁴⁶ dates conveniently enough in 712 B.C., and who, according to Valerius Maximus,⁴⁷ was once sent to help Priene against the Carians, the claim of the Erythraean Sibyl to authenticity seems to be strong. Her cave has been discovered.⁴⁸ But the finds dated from the Roman imperial period. This circumstance, coupled with the fact that the oracle was apparently unknown to Kroisos,⁴⁹ suggests that it was not old. But it does not prove that the legend about the Sibyl's birth on Mount Korykos⁵⁰ was not current even in the sixth century B.C. However that may be, the wording of part of the famous inscription found in the cave:

τῇδε δ' ἐφεζομένη πέτρῃ θνητοῖσιν ἄεισα
μαντοσύνας παθῶν αὔθις ἐπεσσομένων

strongly recalls the Plutarchan-Pausanian version of the habits of the Delphic Sibyl, so that the Erythraean claim to Herophile is considerably enhanced.

So indeed is the probability that the Cumaean Sibyl came from Erythrai. Assuming that Erythrai was associated with Chalkis at the time of the Lelantine War, it seems highly probable that the Sibylline tradition moved west at the time of colonization. Certainly the Campanian cave association recalls that of Erythrai, and Varro⁵¹ and others⁵² believed that the Cumaean Sibyl was identical with the Erythraean. According to one tradition she was even called Herophile.⁵³ The medium for the spread of the Sibylline tradition to Italy was almost certainly Aeolian Kyme. How early the latter adopted the Erythraean Sibyl is not clear, but the prophetess was represented on her coinage at the time of Antoninus.⁵⁴ Again, when Trimalchio⁵⁵ quoted the question put to her in Greek by 'pueri' at Kyme (Cumis) and the answer which she gave, he was probably referring to an Aeolian and not a native Campanian custom.⁵⁶ The reason

³⁹ Cf. Suidas *sub* Σ. Κολοφώνια.

⁴⁰ Cf. Nilsson, *Gesch.*² i. 620; Amandry, *op. cit.* 193; Parke and Wormell, *op. cit.* i. 13.

⁴¹ Strabo 243.

⁴² Cf. R. M. Cooke, *JHS* lxi. 77.

⁴³ For a recent and plausible view cf. E. Will, *Korinthetaiaka* 403.

⁴⁴ Herod. i. 18.

⁴⁵ *Op. cit.* 59.

⁴⁶ vii. 91, 13 (Helm).

⁴⁷ i. 5 ext. 1. Cf. G. L. Huxley, *GRBS* 2 (1959) 95.

⁴⁸ Cf. Reinach, *REG* 1891, 276 ff.; Buresch, *AM* 1892, 16 ff.

⁴⁹ Herod. i. 46 ff.

⁵⁰ Paus. x. 12, 4.

⁵¹ *Ap. Serv. ad Aen.* vi. 36.

⁵² Mart. Cap. ii. 40.

⁵³ Lactant. *op. cit.* i. 6, 18.

⁵⁴ Imhoof-Blumer, *Ztschr. f. Numism.* xx. 279 f., nr. 32.

⁵⁵ *Satyr.* 48.

⁵⁶ Cf. Bücheler, *RhMus* lvii. 327. For the legend of the Sibyl's preservation in a bottle cf. Ovid, *Met.* xiv. 132 ff.

for the Sibyl's westward translation is not far to seek, as the establishment of an oracular seat could have been of signal advantage to Chalkis' colonizing ambitions. Indeed, the possibility of the conscious dissemination of oracular traditions by Chalkis cannot be ruled out even at Delphi, if, as has been persuasively argued,⁵⁷ she was associated with Corinth in the rise of the oracle's fame. Part of her contribution to this policy could have been the establishment of the Sibylline tradition which she brought, as to Kyme, from Erythrai. This hypothesis is, of course, opposed to Herakleides'⁵⁸ specific statement that it was the Phrygian Sibyl who came to Delphi. It is true that there were links between Phrygia and Aeolian Kyme in the eighth century B.C., for we are told by Herakleides⁵⁹ that Midas (presumably Midas I, grandfather of the Midas who committed suicide at the advent of the Cimmerians) married Demodike, daughter of Agamemnon of Aeolian Kyme. This Midas⁶⁰ was, moreover, the oldest dedicant at Delphi. But if, as has been suggested here, Chalkis was behind the propaganda, the Erythraean claim seems stronger.

Admittedly the evidence for the early establishment of a Sibylline tradition at Delphi is tenuous. Yet one of the Sibylline oracles mentioned by Pausanias⁶¹ referred to an event in the sixth century B.C. This had predicted that the battle between the Lacedaemonians and Argives for Thyreatis would end in a stalemate. But the Argives claimed to have got the better of the struggle, and sent an offering of a bronze horse to Delphi. This, according to Pausanias, was the work of Antiphanes of Argos.⁶² But Antiphanes flourished more than 150 years later, and the lettering⁶³ on the base of the statue, which has been found, proves that the dedication at any rate referred to the event of 414 B.C.⁶⁴ and not to the more dramatic battle of 548 B.C.⁶⁵ This, however, does not necessarily prove that the oracle did not refer to the original event. For though it might be claimed that it was wrong in the final outcome, Pausanias merely states that the Argives *claimed* to have got the better of the Lacedaemonians ἀξιοῦντες ἐσχηκέναι πλεόν. In the raid of 414 B.C. they certainly did. However that may be, the interesting points are, first, that Sibylline oracles purporting to refer to events as far back as the sixth century B.C. were in existence in Pausanias' time; second, that the Argives sent an offering in respect of a Sibylline oracle to Delphi. A possible inference is that Sibylline as well as Pythian oracles were issued from Delphi, and that collections of oracles were kept there similar to those assembled by the Peisistratids⁶⁶ at Athens and the Quindecemviri⁶⁷ at Rome. Certainly such oracles were extant in the fifth century B.C.,⁶⁸ though their provenance is never mentioned. Probably oracle-mongers were responsible for the majority, but when the Sibyl turned to politics, as she did when she prophesied that the Athenian generals would be responsible for the disaster at Aigospotamoi,⁶⁹ the possibility is strengthened that such oracles originated in Delphi. There was certainly a collection of oracles at Erythrai⁷⁰ in later times, for it was to that city that Rome applied in 83 B.C. for a fresh supply, as well as diligently searching elsewhere.⁷¹

But to return to the Rock. It adjoined τὸ τῶς Γῶς ἱερόν, and the legend that the Apolline had superseded an oracle of Themis-Ge is old.⁷² Excavation in the vicinity of the sanctuary itself has proved disappointingly barren.⁷³ Yet the association of the Sibyl and Earth, which is also latent in the caves at Erythrai and Kyme, cannot be accidental.

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⁵⁷ Cf. W. G. Forrest, *Historia*, 1957, 172 ff; Huxley, *op. cit.* 96.

⁵⁸ Cf. n. 7; Huxley, *op. cit.* 95.

⁵⁹ *FGH* ii. 216, Pollux 9. 83.

⁶⁰ Herod. i. 14. I accept here a revised stemma for the Phrygian dynasty suggested to me by Mr. G. Huxley. Cf., however, Huxley, *op. cit.* 94.

⁶¹ x. 9, 6.

⁶² Cf. Frazer, *ad loc.*

⁶³ Cf. G. Daux, *Pausanias à Delphes* 86 ff.

⁶⁴ Thuc. vi. 95.

⁶⁵ Herod. i. 82.

⁶⁶ Herod. v. 90.

⁶⁷ Livy v. 13. 5-6.

⁶⁸ Cf. n. 14.

⁶⁹ Paus. x. 9, 5.

⁷⁰ Lactant. *op. cit.* i. 6, 14; *De Ira Dei* 22, 6.

⁷¹ Tac. *Ann.* vi. 12.

⁷² Aesch. *Eum.* i ff.

⁷³ *Chronique des fouilles, BCH* lxxiii (1939) ii. 310-11.

THE *CRETULAE* AND THE LINEAR A ACCOUNTING SYSTEM

CRETULAE is the name given in this article to the small clay nodules, stamped with one or more seal impressions, that have been found in quantity at most Bronze Age sites in the Near East. The Minoan examples are generally smaller than those found at other sites, and the great majority of them have a hole through which string once passed. That is to say, they are lumps of clay squeezed round string and then sealed. At most of the sites in Crete where they are known, they have been found in conjunction with inscribed clay tablets and clay disks. At Hagia Triada they are unique in being for the most part countermarked with a sign of the Linear A script. The interrelationships of the countermarks and sealings have not previously been recorded, and it is the primary purpose of this article to publish them.¹ The catalogue will be found in Appendix A. Proper analysis of it should shed light on Minoan methods of administration, and perhaps too on the purpose of the Linear A tablets. That the tablets, or some of them, belong to a coherent system of administration, and are not all mere inventory lists of what happened to be coming into or going out of store at a particular moment, seems guaranteed by the fact, to which I shall revert later, that totals in the same numerical proportion are found at widely distant sites.

I shall begin with the find-spots. The site of Hagia Triada has never been properly published, and it is therefore not as easy as one would wish to know exactly what came from where. The majority of the *cretulae* (864 to be precise) were found in successive years in the north-west portico at some distance above the floor, which suggests that they had fallen from above. In association with them were the eighteen inscribed disks and eleven tablets (HT 1-11).² Almost adjoining the north-west portico, but on the ground floor, is 'the room of the graffiti' with the 'ready-reckoner' inscription (see pp. 204 f.). Immediately next to this room was a room containing a built-in gypsum chest. This chest was full of a great number of *cretulae*, probably between 250 and 300.³ Unfortunately the whole collection of the Hagia Triada *cretulae* was published together, and there is no sure way of telling which of them were found in this gypsum chest. This is a pity, since they presumably dealt with a different class of business from those found in the north-west portico.⁴

It would appear from the somewhat more luxurious nature of the building in this area, from the existence of the mathematical graffiti, and from the amount of inscribed material found here, that this north-west area of the palace housed the secretarial or administrative offices.

Running southward from this quarter is a complex of small rooms, perhaps stores, in the last

¹ From the artistic point of view the Hagia Triada *cretulae* have been published in full by Levi, *Annuario* viii-ix. 71 sq. Similarly the Zakro *cretulae* (ibid. 157 sq. and Hogarth *JHS* xxii. 76 sq.; *BSA* xvii. 264). Linear A inscriptions are referred to as numbered in Pugliese Carratelli's edition in *Monumenti Antichi* xl, and the signs are identified by his L numeration.

² In his lecture in 1902 Halbherr referred to five tablets, five clay disks, and over 400 *cretulae* as having been discovered in the north-west portico. These were published the next year (*Mon. Ant.* xiii. 33 ff.). In 1903 Parabeni (*Rend. Acc. Linc.* 330) says that eleven tablets, ten disks, and 864 sealings were found in the same area in two years of excavation. These tablets must be Carratelli's HT 1-5

(first year), HT 6-11 (second year). The clay disks published by Levi in 1926 number eighteen; the discrepancy of eight disks is presumably accounted for by some of the smaller disks having been previously counted with the *cretulae*.

³ Carratelli, *Mon. Ant.* xl. 132, though I failed to find a reference to these *cretulae* in the published sources. These are usefully listed by Carratelli at the end of this chapter.

⁴ The *cretula* types given in Halbherr's article in *Mon. Ant.* xiii (asterisked in the catalogue in Appendix A) were found in the north-west portico. But since the article only deals with the first year's excavation, there is no way to tell between the other 400 from the north-west portico and the large number from the gypsum chest.

of which there was a back door leading out of the palace. In this room there was found one tablet (presumably HT 12), and forty-five *cretulae* (Levi type 118). These *cretulae* have no trace of string through them, and only two of them are countermarked.⁵

Two deposits of tablets were found in the storage rooms leading east from the secretarial quarter, and a large number of tablets (HT 85-154) was found in a house in the town some hundred or more yards from the palace. These tablets seem all to have been unattended by disks or *cretulae*, and so do not concern us here.

We now come to the purpose of the *cretulae*. It must be confessed at the outset that sealing-wax is not the most secure evidence from which to guess the contents of a parcel. Nevertheless, some conclusions seem possible. It is highly unlikely that the *cretulae* were used to seal jars or storage vessels, as the pottery would have survived. And if they had sealed wooden boxes, these would have had to be extremely small for over 200 of them to have fitted into the gypsum chest next to the room of the graffiti. There seems no other way in which they could have been used to seal valuables. The alternative is that they sealed written records. This is the more probable in that they have usually been found in conjunction with tablets. But if the written records were clay tablets, it is difficult to understand the numbers. There are nearly 1,200 *cretulae* from the north-west quarter at Hagia Triada, and only eleven tablets. At House A in Zakro there were (in a sealed deposit) about 500 *cretulae* to one clay disk and one tablet. Yet the tablets and the *cretulae* are of the same material and would have equal chances of survival. Thus, despite one's reluctance to hypothesize a higher degree of culture than is necessitated by the surviving material evidence, the conclusion seems inescapable that the *cretulae* sealed documents written on perishable material. This receives confirmation from the slenderness of the string round which they were pressed. And Marinatos (*Minos* i. 40) thinks he can detect traces of papyrus on the clay of some of the *cretulae*. The other candidate for the material is, of course, palm-leaves, which are said by Pliny (*NH* xiii. 69) to have been used for writing by the Cretans. In either case it is clear from the number of the *cretulae* that there must have been a very great many separate written documents stored in the offices.

As I have mentioned, all the *cretulae* are stamped with a seal impression. A certain number of them are also counterstamped. The following is a list of the seal-types (numbered by Levi's classification) which occur on the double-stamped *cretulae*:

7 and 42	93 and 22
26 and 87	40 and 58
28 and 141	40 and 24
62 and 126	143 and 144
100 and 101	143 and 114
110 and 117	

It will be seen at once that 40 and 143 are used to endorse different seals. These must therefore be the countermarkers. Now it seems likely that seal 40 belonged to one of the scribes. It occurs on the rim of a clay disk (Appendix B), and—to judge from the thirteen clay disks all stamped with seal 31 and all written by the same hand—the clay disks were stamped by the scribe who wrote them. The supposition that the scribes who wrote the disks also in some instances counterstamped *cretulae* is strengthened by the occurrences of seal 93, which is found both on a counterstamped nodule and on a 'disk-type' *cretula*.⁶ With the encouragement of this double check we may proceed to attempt a muster of the seals at Hagia Triada which belonged to scribes.

⁵ Parabeni, loc. cit. 323, says that none are countermarked.

⁶ See Appendix B. The disk-type *cretulae* differ from the normal in two respects, first that they are inscribed on

Seal 31. On thirteen disks inscribed by the same hand.

Seal 40. On disk and twice as *cretula* countermark.

Seal 84. On disk.

Seal 112. On two disks, on small bar (Levi 83, fig. 26) countermarking two other seals, and once on *cretula*.

Seal 132. On two disks.

Illegible seal different from above. On disk.

Seal 15. On *cretula* with disk-type inscription.

Seal 37. " " "

Seal 107. " " "

Seal 93. Ditto, and countermarking seal on *cretula*.

Seal 143. Countermarking seal on *cretula*.

And to these we should perhaps add:

Seal 39 or 133. On rectangular tablet. (Levi, ad loc. Not seen by me. Levi gives no details.)

Seal 125. Abnormally high frequency on inscribed *cretulae*.

Six seals as possible countermarks on *cretulae* (i.e. the first column in the table above). There is no double check on these, and other explanations might serve. For instance, they might be rare examples of double sealstones such as were fashionable at Zakro, the seal of husband and wife, &c.

This gives a total of twelve to nineteen scribes or officials employed at the Palace, or rather in this section of it. This figure compares plausibly with the evidence from Zakro. Here none of the nodules are inscribed, but the existence of countermark seals and the association of an inscribed clay disk and tablet in the same deposit shows a similarity of system. The task of distinguishing the countermark seals is complicated by the apparent fashion of using two- or three-sided sealstones. For instance, seal 71 and seal 89 are used together twenty-eight times and never separately. Similarly 21, 28, and 61 (seventeen times). Particularly in view of Hogarth's opinion as to the similarity of artistic style on these grouped sealings, it seems highly probable that they belong to different sides of the same stone, and thus denote a single person. But inspection shows that this is not always the case. For example, 2 occurs separately with 26 and with 52, 24+112 occurs five times with 60 and twice with 105. In this way seven seals (2, 13 (?), 15, 129, 24+112, 51+131, 90+132) can be distinguished as countermarkers.⁷ The clay disk also bears a seal impression. If we make the same assumptions as for Hagia Triada, this will give a minimum figure of eight officials at Zakro among a total of 153 individual seal-owners.

We now come to the countermark inscriptions at Hagia Triada. About twenty-five signs or

more than one side, and secondly that their inscriptions are clearly of the same purport as the inscriptions on the disks. There is, curiously, a parallel in the Hieroglyphic Deposit at Knossos. Here the one *cretula* which is not stamped with a seal impression seems to have performed the function of a label, as it is also the only *cretula* to bear a word common to the labels (SM i. 165, P 76; cf. P 93a, P 108a).

⁷ Compiled from Hogarth and Levi. The details are:

Seal 90+132 countermarks seal 33 in 25 examples

" 88 " 15 "

" 173 " 4 "

Seal 129 countermarks seal	92a)	92b)	in 21 examples (combined)	
" 24+112	"	60	" 5	"
" 51+131	"	105	" 2	"
" 15	"	19	" 1	"
" 2	"	144	" 1	"
" 13	"	54+37	" 1	"
" 113	"	59+135	" 1	"
" 113	"	26	" 1	"
" 113	"	62	" 1	"
" 113	"	87	" 1	"
" 113	"	113	" 1	"

combinations of signs are used, most of which occur a great many times. There is no exclusive partiality of any one countermark for any one sealing. They cannot therefore be double checks made by the seal-owner. Nor could they have been written by him, since the same sign countermarking the same sealing is sometimes written by as many as four different hands.⁸ The total number of hands required to account for the writing of the countermarks is between six and twelve. The signs cannot be abbreviations, since the most frequent of them—L 88—does not begin a single syllabic group on our surviving Linear A documents, and another is an obvious 'saw' ideogram. Nor can they refer to commodities. Not one of the many commodity ideograms on the tablets is repeated on the *cretulae* (except for the very few with 'disk-type' inscriptions). It might appear that, since none of the double-stamped *cretulae* carry an inscription, the inscribed countermark performed the same function as the second seal. But it is noteworthy that none of the seals represented on the twice-stamped *cretulae* appear in Halbherr's publication of the first 400 *cretulae* found in the north-west portico. There is thus no direct evidence that the twice-stamped *cretulae* were found mingled with the countermarked *cretulae*. In view of this uncertainty we cannot argue that the impression of a second sealing was merely alternative to the inscribing of a countermark. It may have been a procedure for a different class of documents separately filed. This will leave us free to suppose that the countermarks are just reference symbols, probably for the most part of an arbitrary nature. Twenty-five files, or twenty-five categories of account, would not necessarily be disproportionate to the administrative needs of a medium-sized community such as Hagia Triada.

In contrast to the countermarks on the *cretulae*, the inscriptions on the eighteen clay disks are clearly meaningful. They consist generally of a word or words on the obverse, and on the reverse a commodity ideogram. They would therefore seem to describe the contents of an inventory. And again, since eighteen disks were found in the north-west portico, compared to only eleven tablets, it is likely that these inventories too were written on perishable material. The disks are impressed round the edge with a seal, and, as I have argued above, it is probable that the sealing was done by the scribe who wrote them.

I take the opportunity of publishing a formalized transcription of the inscriptions (Appendix B). They do not appear in Carratelli, and since his edition of the tablets it is possible to read them with more certainty than could be done by Levi in 1926.

This concludes what I have to say at this stage on the *cretulae*, but before taking temporary leave of them it may be convenient to summarize the evidence in tabular form:

	<i>Hagia Triada</i>	<i>Zakro</i>
Approximate number of <i>cretulae</i>	1,200	500
Total number of sealstones used	147	153
Seals used for countermarking <i>cretulae</i>	9	7
Seals used on the inscribed clay disks	6*	1
Seals used on <i>cretulae</i> with disk-type inscriptions	4*	..
Seals therefore presumed to belong to scribes or officials	17	8
Other seal-owners	130	145
Types of inscribed countermark	25	..
Percentage of <i>cretulae</i> bearing countermark	c. 70 per cent.	..

* One of which is also used as a countermark.

⁸ Among the sealings of type 125 there are four different hands responsible for the L 100 series of countermarks; for the L 100+L 58 series there are three hands responsible, two of them different from those in the first-mentioned

group. See also the forms of L 92 and of L 98 in Appendix A. Where the letters are nearly all solo occurrences on separate objects it is clearly impossible to fix a maximum of scribes.

We now come to the numerical proportions observable in some of the Linear A tablets, to which I referred at the outset of this article. These are not only a great puzzle in themselves, but also of some historical value even in their unsolved state in that, being common to Knossos, Zakro, and probably Tyliisos as well as to Hagia Triada, they testify to a very close similarity of economic or administrative organization in the main centres of Minoan life.

Minoan numerals follow a decimal system, and there is no doubt that the Minoans counted in hundreds. If probability needs further support, the clearest evidence is afforded by HT 12, where the first set of assorted entries, totalling fifty, is followed by a word and then again the numeral 50. The inference that this tablet refers to a percentage system cannot be doubted. That the Minoans also counted sexagesimally for some purposes is not only likely in itself, but also witnessed by a tablet from Phaistos (Ph. 2) where the account is composed of three items of sixty each.

Now the single tablet from House A in Zakro divides into two parts; the obverse totals to $47\frac{1}{2}$, and the reverse to 57, the numeral in each case being preceded by the (corn?) ideogram L 67. These amounts are 5 per cent. short of 50 and 60 respectively.

The brief and businesslike tablet from Knossos (Kn. 1) has on each side a word followed by an ideogram (L 44) followed by a numeral. The numerals are 240 and 95; 240 is clearly not a random number, and 95 is 5 per cent. short of 100.

The Tyliisos tablet (Ty 3) is divided on one side by ruled lines into four sections. The first two sections have the same form, and it is quite clear from the spacing that their last lines are to be read independently. They consist of grain ideograms followed by numerals. Though unfortunately there is one uncertain reading, it seems that in each case the numerals total $9\frac{1}{2}$ which is 5 per cent. short of 10.

At Hagia Triada several tablets total exactly to these proportions:

- HT 8a: Word—IDEO—10 followed by words and numerals totalling $9\frac{1}{2}$.
 HT 14: excluding the L 42 entries the items add to 57.
 HT 21: " " " a quarter of 95.
 HT 15: multiples of 57 (noticed by Bennett, *AJA* liv. 209, n. 27).
 HT 104: the total recorded is 95.
 HT 118: the whole adds to 95.

Less certain instances are HT 11a (items after the 'total' entry add to 19) and HT 22 (approximate multiples of 57, see Bennett, loc. cit.).

It is noteworthy that these figures (except perhaps in HT 118) all occur on the 'commodity' and not on the 'personnel' tablets (Furumark's Class B).

So far I have labelled these proportions '5 per cent. short', but there is another method by which they can be reached. In the secretarial quarter in the north-west of the Hagia Triada palace there was written on the wall the remarkable inscription 1, $1\frac{1}{2}$, $2\frac{1}{4}$, $3\frac{3}{8}$. This geometrical progression can hardly have been a devotional text or a cathartic outburst. It must be a ready reckoner of some kind, and we may hope to find reflections of its use in the surviving accounts. Now the multiples and divisors of 19 can be arrived at by means of this progression, viz.:

$$\begin{aligned} 2+3+4\frac{1}{2} &= 9\frac{1}{2} \\ 4+6+9 &= 19 \\ 12+18+27 &= 57 \\ 20+30+45 &= 95, \text{ \&c.} \end{aligned}$$

It is hard to believe that this is pure accident despite the fact that the third term $3\frac{3}{8}$ is not necessary for the calculation.

There are some indications, though not enough to be conclusive, that the simple terms of this progression are significantly represented in the tablets. HT 14 and HT 118 both carry entries which seem to be intentionally in these proportions. Elsewhere 'round numbers plus 50 per cent.' occur with reasonable frequency, but in contexts where without further analysis one cannot exclude chance.

In financial terms, the totals 95, 57, &c., represent 50 per cent. compound interest over a period of two terms with the capital added each time. This can be paralleled—at any rate in its apparent exorbitance—in New Kingdom Egypt where 'the rate of interest amounted usually to 100% p.a.: at the end of each year the interest was added to the capital and a further 100% was charged on the resulting total'.⁹

It remains to discuss the interpretation of these data. But until the tablets are deciphered or firm analogies are produced, there can be no certainty, and speculation may be misleading. I shall therefore be as brief as possible.

First the sealings. One may assume that seals represent persons, though even this is open to doubt. The forty or so seals found in the Vapheio tomb (*EA* 1889) presumably belonged to a single man, or to a man and his wife, and it is possible that the numerous seals in use at Zakro and Hagia Triada all belonged to a few officials. But that it was just whim which determined which file was stamped with which seal out of the many at one man's disposal is not very likely in itself, and is made less likely by the similar pattern of usage we have found between the offices of the two centres. Nor will it make sense to suppose that the seals were stored in the offices to be used each on a distinct category of document. The fact that none of the seals was discovered in the excavations suggests that they were personal possessions which survived the destruction with their owners. Also the number of categories of document would be exceedingly high. Besides, it is *a priori* probable that in a society of restricted literacy each individual will possess his own seal, which will be used as the mark of his identity.

On this assumption that seals represent persons, there are approximately 150 people recorded at each of the sites Hagia Triada and Zakro. This figure seems too large for them all to have been palace officials, and in fact by analysing the usage of certain sealings we have distinguished a reasonable and limited number of these at each centre. To whom did the remainder belong? There is only one certainty in this question. They must have been local people. The seal-designs have a certain artistic homogeneity in each case which suggests that they reflect local taste. And, a more weighty argument, the countermarks were inscribed when the clay was still damp. This must have been done by the scribes in the office. The sealing, which also needs damp clay, must have been done at the same time. The seal-owners must therefore have been local residents and not foreign correspondents.¹⁰ But beyond this one can only suggest possibilities. The 130 or so individuals may have been on the Palace pay-roll, and the sealed documents may have recorded the details of their wages. They may have been taxpayers and the

⁹ Seidl in *Legacy of Egypt* 203.

¹⁰ The only evidence that suggests that the function of the *cretulae* was to seal correspondence is the discovery by Marinatos (*AE* 1939-41, 87 ff.) at Sklavokampo of nodules bearing the same seal-impressions as have been found elsewhere; notably for our purpose Levi seal 117—a countermarker—at Hagia Triada equals Marinatos seal 8 at Sklavokampo. (To judge from the illustrations given, the charging bull (Marinatos 2) does not seem the same as the Hagia Triada seal he quotes (Levi 54)). The Zakro sealings

from Anemomylia near Knossos bought by Evans (*PM* ii. 254) are suspect evidence, since excavation failed to reveal any more. Mr. Kenna, to whom I am grateful for the care with which he has examined them, tells me they do not look like forgeries. But since there seems no warrant for Evans's remarks about the peculiar nature of the clay, it cannot be excluded that they may have been genuine Zakro sealings extracted from the original find, especially as they are among the most frequent of the Zakro combinations.

documents have contained their assessments, with the seal registering their assent and the guarantee of non-interference. Or they may have been in a more independent relationship with the Palace, as borrowers, as sellers of goods, or the like. This is perhaps the most likely in view of the 'nineteen-times' tablets, whose *raison d'être* in a straightforward taxation system would not be easy to explain. The Minoan Palaces must have been the centre of economic as well as of political and religious life, and it would not be surprising if they had in some sort discharged a banking function. The hypothesis is attractive, but must at the moment remain a mere guess.

However, two general conclusions of some value emerge from the foregoing evidence. The first, based on the distribution and nature of the *cretulae*, is that these must have sealed written documents, and that the Minoans must have written on perishable material such as papyrus as well as on clay. The second is the existence of a specific Linear A accounting system common to the main centres of Cretan life.

APPENDIX A

The following catalogue of the *cretulae* found at Hagia Triada is designed to show the relationship of sealings and countermarks.¹¹ The seal-type numbers refer to Levi, 'Le cretule di Hagia Triada', *Annuario* viii-ix. 71 sq. For typographical convenience I have denoted the countermarks by capital letters of the alphabet (FIG. 1), to which the key is shown on p. 208.

A		J		S	
B		K		T	
C		L		U	
D		M		V	
E		N		W	
F		O		X	
G		P		Y	
H		Q			
I		R			

FIG. 1. TYPES OF COUNTERMARK ON HAGIA TRIADA *CRETULAE*

The letters are allotted so that A represents the most frequent countermark, B the next most frequent, and so on.

An asterisk indicates that one or more examples of the sealing were among the 400 found in the north-west portico during Halbherr's first campaign, and published by him in *Mon. Ant.* xiii.

¹¹ The catalogue was drawn up at Heraklion in 1957, and I must thank the Director of the Museum, Dr. Platon, not only for allowing me to work on the material but also for his consistent helpfulness while I was doing so. I have

deposited with him a detailed index of the *cretulae* for the convenience of any future worker who wishes to check my figures and allocations.

<i>No. of cretulae</i>	<i>Seal-type</i>	<i>Counter- mark</i>	<i>No. of examples of countermark</i>	<i>No. of cretulae</i>	<i>Seal-type</i>	<i>Counter- mark</i>	<i>No. of examples of countermark</i>
248	Levi 125*. Two figures	B	49	13	Levi 68. Quadruped	I	1
		E	38	12	Levi 12*. Quadrifoil	(None inscribed)	
		D	30	12	Levi 33*. Flying fishes	(None inscribed)	
		G	18	8	Levi 119. Woman	H	2
		A	15	6	Levi 122*. Two women	B	2
		J	10			D	1
		C	8			E	1
		I	7			C	1
		L	6	5	Levi 38*. Lioness	A	2
		K	6	5	Levi 123. Woman with load	D	2
		M	3			A	1
		Q	1			E	1
123	Levi 13. Bird	A	104	5	Levi 140*. Women at altar	A	3
		H	9	5 each	Levi 2, 25, 135*, not inscribed		
		F	3	4	Levi 43. Lion	N	3
		B	3			J	1
		I	2	4	Levi 17*. Bird	A	4
		E	1	4	Levi 60. Bull	(None inscribed)	
102	Levi 95*. Griffins	B	44	4	Levi 114. Combat-scene	(None inscribed, one countersealed)	
		C	26			A	2
		D	21	3	Levi 3. Design	C	3
		E	4	3	Levi 78*. Falling bull	B	2
		G	1	3	Levi 63*. Bull.	Y	1
60	Levi 105*. Horned woman	C	29			A	2
		D	13	3	Levi 102. Eagle woman	U	1
		B	9			A	2
		E	4	3	Levi 136*. Woman at altar	D	1
		G	3	3	Levi 6*. Helmet	Inscription	1
		I	1	3	Levi 93. Swan and bird	not inscribed	
45	Levi 118. Boat and rower (from south-west corner)	A	1	3 each	Levi 8*, 50, 54*, 55, 59, 84	A	2
		E	1	2	Levi 18*. Bird	F	2
42	Levi 79*. Lion pursuing bull	B	12	2	Levi 14. Bird	D	1
		C	10	2	Levi 76*. Deer or goat	B or E	1
		D	8	2	Levi 27*. Birds	A	1
		E	5	2	Levi 73*. Agrimi	I	1
		F	4			A	1
38	Levi 19*. Partridge	B	26	2	Levi 103*. Female eagle	I	1
		E	5			S	1
		O	4	2	Levi 82. Dog scratching	not inscribed	
		R	1	2 each	Levi 10*, 11, 30, 48, 70, 71, 74*, 89, 117	C	1
		C	1	1	Levi 5. Sword (?)	P	1
28	Levi 9. Tree-trunks	A	20	1	Levi 16. Bird	D	1
		H	2	1	Levi 36. Lion	G	1
		E	1	1	Levi 53. Bull rearing	C	1
25	Levi 45. Lion	A	4	1	Levi 64. Horned animal	D	1
		H	2	1	Levi 65. Horned animal	B	1
		I	2	1	Levi 66. Bull (?)	F	1
		C	2	1	Levi 81. Dog turning	T	1
		X	1	1	Levi 88. Lion and bull (?)	E	1
24	Levi 99*. Griffin	A	21	1	Levi 108. Bull and athlete	F	1
		H	4	1	Levi 115. Boxing scene	F	1
		W	1	1	Levi 130. Woman	F	1
20	Levi 106*. Monster	(None inscribed)		1	Levi 139*. Woman among rocks	Inscription	1
17	Levi 116*. Paired shields	B	10	1	Levi 37. Lion	each of approximately fifty seal impressions not inscribed.	
		C	4			M	1
		E	1	1		D	1
		P	1	1		V	1
14	Levi 34*. Scallop-shells	F	8				
		C	4	No seal impression			
		D	1				
13	Levi 32*. Dolphin	B	9				
		C	4				

For *cretulae* with two sealings, see p. 201. None of these is inscribed.

Heraklion
Museum
number

Face (a)

Face (b)

Disks stamped with seal-type 112

69	62-98-54: 51-83	qa-ku-re: di-83	71 + m23:	67 + m20	OIL ₂	CORN ₂
‡68	29-98-2	ka-ku-pa	67 + m20	71 + m23	CORN ₂	OIL ₂

Disks stamped with seal-type 132

73	70	LOOM	..	..
..	29-(...	ka-(...	71 + m23	(... OIL ₂ (...

Disk stamped with much defaced seal

78	29-98-2	ka-ku-pa	71	CORN
----	---------	----------	----	------

H.M. Inv. Number	Face (a)	Face (b)	H.M. Inv. Number	Face (a)	Face (b)
	Seal 31			Seal 40	
79			71		
80					
				Seal 84	
77			65		
64					
				Seal 112	
63			69		
70			68		
75					
76				Seal 132	
66			73		
74			—		
72					
67			78		

FIG. 2. THE INSCRIPTIONS ON THE CLAY DISKS FROM HAGIA TRIADA

Notes:

- †72 and 67. First sign perhaps L 62. It is clearly not the same sign as in disks 70 and 74, as the handwriting in this group is the same throughout, but it is possible that L 101 should be distinguished into two signs.
- †67*b*. A mirror image of L 87, presumably by simple error.
- ‡68. The third sign has the same form in HT 96*a* and *b*, and HT 115*a* and *b*. The apparent occurrence of the same word on disk 78 (also HT 15 heading) would seem to fix it as a variant writing of L 2.

(ii) Cretulae with disk-type inscriptions (FIG. 3)

Seal-type	Face (a)		Face (b)		Face (c)	
Seal 37	78-74-26	ti-ta-na	67 + m20	98-2	CORN ₂ ku-pa	78 ti
Seal 93	57-6	57-tu	61-m1-25		ne?- $\frac{1}{4}$ -nu	
Seal 15	87-93	o-du	67 + m20	71 + m23	CORN ₂ OIL ₂	
Seal 107	87-93	o-du	c52-53+29		c52 ra + ka	m12 $\frac{3}{4}$
Seals 20, 47, 112 (prismatic bar)	67-71 + m23 numeral 3	CORN OIL ₂				

H.M. Inv. Number	Seal-type	Face (a)	Face (b)	Face (c)
575	37			
570	93			
1370	15			
1347	107			
..	20, 47, 112			

FIG. 3. THE INSCRIPTIONS ON THE DISK-TYPE CRETULAE

EUBOEAN FLORAL BLACK-FIGURED VASES

(PLATES 52-57)

IN the Museum at Chalcis¹ there are more than a dozen black-figured vases decorated with palmettes, lotus flowers, leaves, and other plant motives. I drew attention to some of these in *BSA* xli. 27 f., associating with them similar vases in Athens, Berlin, Bonn, Reading, and Thebes, and suggesting that they were probably made in Euboea. It is possible now to go farther and take a more extended view of what was undoubtedly a vigorous local industry in either Chalcis or Eretria or both in the fourth century B.C.

For convenience the material is here divided into groups according to the shapes of the palmettes and lotuses and the character of the patterns. The order may not be strictly chronological and the vases grouped together do not necessarily come from the same workshop, but certain lines of development can be traced and the groups link together to form a coherent whole.

A. THE BONN GROUP

This first group is named after a pyxis in Bonn which was the first vase of the kind to be assigned (tentatively) to a Euboean fabric.² It is the largest group, and in it can be seen most of the special characteristics of the Euboean floral style. It will therefore be useful to describe it in some detail.

The lotus flowers are of the shape seen on the right of the palmette on PLATE 52: 1, 2, with double rows of dots separating the petals. The hearts of the palmettes consist of chevrons. Either one or two chevrons stand on outcurving tendrils, sometimes with a small arc or half-egg below them as in PLATE 52: 1, 2, or else one, two, or three chevrons superposed stand directly on the ground, either with or without a small vertical line inside them; see PLATE 53: 1, 2. Occasionally the legs of the chevrons are slightly curved so that they approximate to the familiar egg pattern, PLATE 53: 3, 4. Chalcis 1041 (3) has a special heart of its own consisting of two small leaves at each side, the upper two joined by a chevron which is pierced through by the central leaf of the palmette, PLATE 52: 3. The same vase also has a palmette with the normal heart of two chevrons.

The middle leaf of the palmette tends to be exceptionally long where the field is sufficiently tall to make this possible. In comparatively narrow friezes, especially those on lids, the palmette is generally set obliquely to allow for the extra height of the leaf, e.g. PLATE 53: 1, 2. An exception is the lid of the shallow pyxis Chalcis 662a (6), where the palmettes, standing erect, have had to curtail the height of the middle leaf for lack of space, PLATE 54: 1. The lotuses are correspondingly squat. On each side of the middle leaf there is generally a cluster of dots. Chalcis 1041 is again peculiar in having in this position a rosette-flower complete with stalk, and in preferring a single to a double row of dots in the lotus, PLATE 52: 3, 4.

The palmettes, almost without exception, are framed by tendrils which, starting sometimes

¹ My thanks are due to the Director of the Greek Archaeological Service, Dr. J. Papademetriou, for facilitating my work in Chalcis and for permission to publish vases in Chalcis Museum; also to Mrs. Semne Karouzou, Professor F. Brommer, and Mr. R. W. Hamilton for permission to publish vases in Athens, Marburg, and Oxford. To Miss Paola Pelagatti I owe special thanks for the generosity with which she has put at my disposal her photographs of floral vases and given me information about

vases I did not know. I am indebted to her for the photographs used for PLATE 54: 1, 5, and 6. I also wish to thank Mr. John Boardman for the photographs used for PLATES 54: 2, 4, 7 and 56: 7. Miss Barbara Philippaki and Miss A. Andreiomenou have put me much in their debt by giving me unstinted help when I was working in Athens and Chalcis.

² *AA* 1933, 34, no. 12.

from the heart, but more often at some little distance away from it, sweep round the sides and draw in abruptly to end in a final curl close to the middle leaf; see PLATE 52 *passim*. They are found framing lotuses also, though less frequently; see PLATE 53: 2. These framing tendrils with their sudden backward curve remind one of a button-hook. Such tendrils with button-hook curve are sometimes scattered loose in the field, e.g. on the lid of the little pyxis that serves as a knob on Chalcis 660 (1), PLATE 53: 1. Others, generally longer and slenderer, grow as it were from the ground with a small cluster of leaves springing up from the root, as on PLATE 52: 2 left, FIG. 1c, or with a much larger and more important series of leaves, resembling the half of a palmette, in the same position, as on PLATE 52: 1 left, FIG. 1d. A similar half-palmette sometimes hangs from the volute at the top of the framing tendril, e.g. PLATE 52: 1, 2 (on the left of the palmette), or, looking rather withered, PLATE 53: 4. For a smaller and more untidy example of the same motive see the lid of the little pyxis-knob of 1, PLATE 53: 1. Other embellishments of the framing tendril are seen in PLATES 52: 3, 4 and 53: 3, 4. Where two palmettes, or a palmette and a framed lotus, are placed side by side, the adjacent framing tendrils tend to coalesce, or rather one of them bifurcates, the tendril which grows out from it forming part of the frame of the neighbouring palmette (or lotus), see PLATES 52: 3, 53: 3, 4. Occasionally, for lack of space, the painter fails to achieve a button-hook curve, or any curve at all, at the end of the framing tendril, as on the left side of the palmette on PLATE 53: 3, where it merely thickens a little and comes to an abrupt end. As the style progresses we shall see that this unsatisfactory abbreviation becomes commoner.

I have used the term 'button-hook' for the characteristic curve of the tendril in order to draw attention to the sharp backward bend of the stem before the volute is reached, as on PLATE 53: 2. This curve is not always so emphatic, but it is nearly always there, and it is this more than anything else which distinguishes the palmettes of this class of pottery from Boeotian palmettes, where a tendril normally turns away from the palmette it accompanies, rather than back towards it. Contrast with our tendrils those accompanying the Boeotian palmettes in *JHS* xlv (1926) 56 f., figs. 1-3, pls. 2. 1, 3. 11, 16.

In the field, as well as the occasional button-hook, we find crosses and swastikas, both plain and dotted, rosettes, and shapeless clusters of dots. For borders there are wave pattern, chevron bands, dotted zigzags, tongues, bars, and dots.

The vases of the Bonn group are set out in the following list. Descriptions are given only where needed to supplement the illustrations.

1. Chalcis 660, from Chalcis. Nuptial lebes, type 2, with double handles, the knob of the lid being in the form of a lidded pyxis.³ H. to top of handles 0.255 m. (PLATES 52: 1, 2, 53: 1. The side opposite to 52: 1 is figured in *Arch. Class.* xi (1959) pl. 30, 3.)

2. Bonn 385. Deep handleless pyxis, lid missing. H. 0.145 m. (*AA* 1933, 30, fig. 34.)

3. Chalcis 1041, from Euboea. Stamnos-pyxis, lid missing. H. 0.197 m. (PLATE 52: 3, 4; *Arch. Class.* xi, pl. 30, 4.)

4. Berlin F 4086, from Corinth. Plate or shallow bowl. Diam. 0.31 m. Round the rim a laurel wreath in RF; within it three palmettes and one lotus in BF. Ext. on the rim bars, the rest black.

5. Chalcis 1039, from Euboea. Deep handleless pyxis with lid. H. without lid 0.11 m. On the lid black bars radiating from the knob; round the edge wave pattern. (PLATE 53: 3, 4.)

6. Chalcis 662a, from Chalcis. Lidded lekanis. Diam. 0.11 m. On the receptacle vertical wavy lines. (PLATE 54: 1.)

7. Athens Nat. Mus. from Eretria. Lid, nearly half lost. Knob as that of 6. (PLATE 53: 2.)

8. Market. Lid. Palmettes and lotuses. The place of a knob is taken by a ring like the foot-ring of a stemless cup.

9. Athens Nat. Mus., from Eretria. Lid, knob lost. Diam. 0.083 m. Two palmettes and a lotus; swastikas in the field.

10. Athens, British School, from Chalcis. Fragment. (PLATE 54: 7.)

11. Athens Nat. Mus., from Eretria. Lid. Diam. 0.08 m. Groups of chevrons (about four in each group), blunt at the top and much like the palmette hearts in PLATE 53: 3, 4, the groups separated by a single vertical leaf. Knob of approximately the same shape as those of nos. 6 and 7.

³ The lid of the small pyxis forming the knob was formerly inventoried separately as 662c.



FIG. 1



FIG. 2



FIG. 3

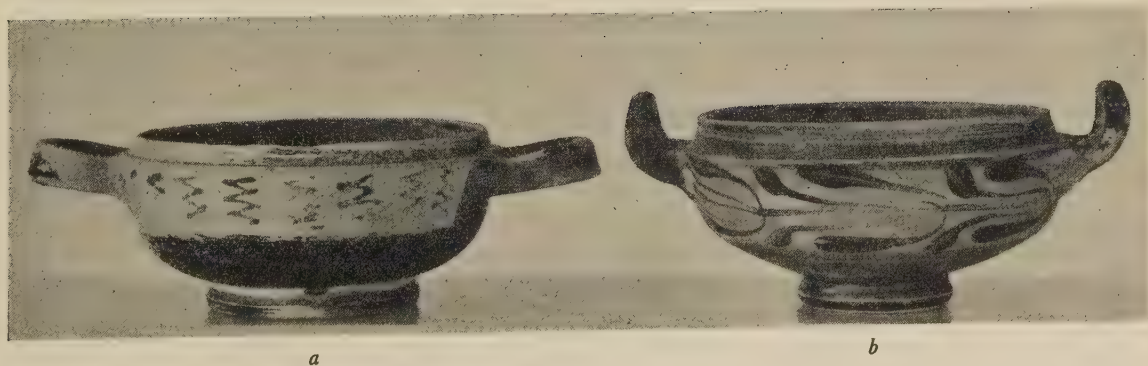


FIG. 4

B. THE FERORELLI GROUP

My knowledge of the vase from which this group takes its name I owe to Miss Paola Pelagatti, who saw that it was close to the lekanis in Thebes.⁴ I am very grateful to Dr. Medoro Ferorelli, in whose collection it is, for permission to publish it here. The group has much in common with group A. Most of the motives of the Bonn group are repeated, and others, more fanciful, are added. Rosette-flowers on stalks, which have already been seen on one vase in group A on each side of the middle leaf of palmettes (PLATE 52: 3, 4), now appear regularly in that position, and also replace the rows of dots in the lotuses. The calyx of the lotus flowers has become small and insignificant. Long slender tendrils sprout from the ground, putting out little roots and delicate leaves, FIG. 1*a*, *b*. New are lotuses with inturning petals, FIG. 2*b*, similar groups of loose petals turning sometimes out, sometimes in, FIG. 2*a*, and very long pendent leaves such as FIG. 2*c*.

12. Thebes, old collection. Lidded lekanis, both handles missing. Diam. 0.25 m. (PLATE 54: 3; *BSA* xli, pl. 10. 11.)

missing. (PLATE 54: 5, 6.)

14. Chalcis 662b, from Chalcis. Lidded lekanis. Diam. 0.118 m. (PLATE 54: 2, 4.)

13. Rome, Dr. M. Ferorelli. Deep handleless pyxis, lid

C. THE GROUP OF THE OXFORD LEKANIS

The vases of this group are coarser and clumsier. The rosette-flowers have degenerated into untidy groups of spots, while single spots are often used to flank the middle leaf of palmette or lotus or are scattered in the field. The palmette heart consists of a single chevron or half-egg, generally with a small vertical stroke or a dot inside it. On Chalcis 1040 (**15**) two of the three lotuses have their petals gathered together at the base, PLATE 55: 2, while in the third, as on the Oxford lekanis, the petals are completely free, each one springing separately from the ground, PLATE 55: 3 right. Thus, apart from the groups of dots between the petals, there is little to distinguish this lotus from a palmette that has no heart. Similarly, it would be difficult to feel certain that the cluster of leaves or petals on the right of the lid of the Oxford lekanis as seen in PLATE 56: 2 was intended for a lotus, but for the fact that the palmettes on this vase have a chevron heart and framing tendrils. **15** and **16** still have in their framing tendrils the button-hook curve. On **17** and **18** it has been abandoned and there is merely a thickening of the stem where it comes to an end. On the lid **18** the framing stems or leaves have been duplicated, making a new pattern, PLATE 55: 5. This tendency towards duplication and repetition is carried farther in group D. An unattractive feature is the row of ungainly vertical leaves under the handle of **15**, PLATE 55: 3. Straight verticals under handles are also found on Euboean lekanides where the rest of the handle zone has wavy lines. There are several examples of this in Eretria Museum.

In the field there are swastikas, button-hooks, and large single spots.

15. Chalcis 1040, from Euboea. Stamnos-pyxis. H. 0.16 m. On the lid coarse rays. (PLATE 55: 1-3.)

Two framed palmettes alternating with two lotuses similar to those of the Oxford lekanis; four large spots in the field.

16. Oxford 1936.114. Lidded lekanis. Diam. 0.10 m. (PLATE 56: 1, 2.)

18. Chalcis, from Euboea. Lid. Diam. 0.10 m. (PLATE 55: 5.)

17. Chalcis 560, from Chalcis. Lid. Diam. 0.087 m.

D. THE GRAZIANO GROUP

I owe to Miss Pelagatti the vase in Turin and also the stamnos-pyxis no. **21**. In this group there is more frequent use of loose parallel leaves, e.g. PLATE 56: 3, which often lose their shape

⁴ *Arch. Class.* xi. 73.

and forget their origin and become mere parallel lines acting as spacefillers, FIG. 3*a*, *b*. The palmette heart is a single chevron, sometimes broad and resting on the ground, sometimes narrower and standing on a pair of tall volutes, as on the Reading lekythos, PLATE 56: 3. This form may perhaps have been suggested by the far more delicate heart of Chalcis 1041 in group A, PLATE 52: 3. Palmettes with the two different hearts occur side by side on the Graziano vase. The framing tendrils are either button-hook or else they end without a volute. Again, the two kinds appear side by side on the same vase.

19. Reading University 35.4.2. Lekythos. H. 0.15 m. (PLATE 56: 3; *CV* i, pl. 20.8*a*, *b*.)

20. Turin, Mr. Felix Graziano, perhaps from Lamia. Deep handleless pyxis with lid. On the receptacle upright palmettes and lotuses; on the lid palmettes and inverted

lotuses. (*Arch. Class.* xi, pl. 30, 1.)

21. Private collection. Stamnos-pyxis with lid. On the receptacle upright palmettes and lotuses; on the lid rays; op. cit. pl. 30, 2.

E. THE GROUP OF THE LEKANIS WITH CHEVRON BAND

While groups A to D are all closely connected, B, C, and D being in fact mere deviations from A, in group E we have a different manner of drawing. Leaves and petals are thin. The framing tendril no longer curls at the end, but it has a small subsidiary tendril curling out from it a little above ground-level. This is not an innovation. It can be seen in group A on the lid with the pyxis-knob, Chalcis 660, PLATE 53: 1, but it is only in group E that it is invariably present. The heart of the palmette consists of two concentric arcs or half-eggs with or without a dot. There are dot clusters on each side of the middle leaf of palmettes (one dot only on 22), but none on the lotuses, which are of the shape seen on PLATE 56: 4. Both the vases in this small group appear to be from the same hand.

22. Reading University 60.1.5. Lekythos. H. 0.135 m. (PLATE 56: 4.)

23. Private collection. Lidded lekane, in shape much like the Oxford lekanis, PLATE 56: 1, but the stem of the disk-knob is shorter and, unlike Oxford, the handles have the projections usual with a lekanis handle. In the handle zone

a band of continuous chevrons similar to those on the pyxis-knob of A 1, PLATE 53: 1, and to those on a small lekythos of sixth-century shape from Euboea in Chalcis Museum, PLATE 55: 4. On the lid palmettes and inverted lotuses closely resembling those of 22.

F. GROUP OF THE ATHENS HYDRIA

With group F we have again a distinctly different style. The middle leaf of the palmettes is not disproportionately tall, there are no tendrils or leaves framing the palmettes, the heart is generally a single arc or a single chevron. The lotus consists essentially of three petals, generally on a stalk, giving the impression of a three-pronged fork or trident. Extra side petals or sepals and dots are added according to taste. The deep bowl with suspension holes in Chalcis (24) shows the pattern in a simple form, PLATE 56: 7. The Athens hydria has palmettes similar to those of the Chalcis bowl, but it also has one with a long middle leaf and a typically Euboean heart made up of two chevrons and a little vertical stroke, PLATE 56: 9. The larger leaves of this palmette are stiff and straight and the smaller droop only a little. The stiff-leaved palmette is not common in Euboea and might tell against the attribution of this vase to a Euboean fabric but for the fact that on the back of this same vase the palmettes have slightly drooping leaves which closely resemble those of 24. Also the linear pattern on the lip is near to that on the edge of the lid of the pyxis 31 in group H, PLATE 57: 3, which comes from Eretria. The hydria from Thebes in Würzburg has always been regarded as Boeotian and the tendrils attached to the palmette on the back (Langlotz, *Gr. Vasen in Würzburg* pl. 220) curve away from it in the Boeotian fashion. Nevertheless, its resemblance to the Athens hydria in shape and in

the similarity of the palmettes would seem to justify its inclusion here. A Euboean feature is the height of the lotus buds on the neck, which can be paralleled in Eretria Museum.

24. Chalcis, from Euboea. Deep handleless bowl; two holes in the rim for a string for suspension. H. 0.10 m. The hearts of two of the three palmettes are dotted. (PLATE 56: 7.)

25. Athens Nat. Mus. 12684, N 915. Hydria. H. 0.40 m. On the front man and woman between palmettes, Wolters-Bruns, *Das Kabirenheiligtum bei Theben* pl. 61.9. (Back and

handle PLATE 56: 3, 4.)

26. Würzburg 659, from Thebes. Hydria. H. 0.208 m. On the front, palmette between two women; on the back and beneath each handle, a palmette. On the neck very tall linked buds; on the shoulder attenuated palmettes. (Langlotz pl. 220.)

G. GROUP OF THE READING LEKANIS

This group is connected with the preceding by the shape of the lotus, which is of the fork or trident variety with three petals. The Reading lekanis has in addition a five-petal lotus, which is an extension of the trident and has a similar stem. Those of the Oxford pyxis are five-petalled, but have lost the stem. All the palmettes, except one of the three on the lid of the Oxford vase, have framing leaves. There are no button-hook tendrils. The drawing of the palmettes varies considerably. There must have been several hands at work within this small group, both making and painting. The shapes of the vases show several peculiarities. For instance, the flat heavy vertical handles of the Oxford vase are unlike any we have seen hitherto on a vase of this shape and resemble rather those of a lekanis. The one handle preserved of the Reading lekanis is round in section and from the stumps that remain it appears that it was pointed. Nevertheless, it has the projections proper to a lekanis handle. Only **27** has palmettes that resemble the standard form of group F (PLATE 56: 7). The Reading lekanis has the same heart, but different leaves. The hearts of **28** and **29** consist of two arcs set side by side. In addition to this kind **28** has also, on the side not illustrated, a totally different palmette with long middle leaf and no heart, the leaves springing from the ground. It has also, more realistically growing from the ground, a small bud among leaves, FIG. 12. The Reading lekanis is unique among the vases published here in having palmettes with inturning 'honeysuckle' leaves alternating with others of normal shape. The honeysuckle leaves suggest that the painter was familiar with the button-hook tendrils of previous groups.

27. Athens Nat. Mus., from Eretria. Deep handleless pyxis, shape as no. **13** of group B. Alternate trident lotuses with stems and palmettes framed with leaves, with large single arcs for hearts.

28. Athens Nat. Mus., from Eretria. Stamnos-pyxis,

lid missing. H. 0.145 m. (PLATE 57: 1.)

29. Oxford 1925.72, from south Russia. Stamnos-pyxis. H. 0.165 m. (PLATE 56: 6, 8; CV i, pl. 48, 18.)

30. Reading University. Lidded lekanis. Diam. 0.11 m. (PLATE 57: 2, 4.)

H. SUNDRY LEKANIDES

The normal lekanis is a shallow, lidded bowl, the handles of which are broad and flat, generally with projections that give a false impression of being protruding ends of the ribbon strip that forms the handle.⁵ Beside these there are some which have kylix handles, round in section, often with a pronounced upward twist. As they resemble lekanides in other respects, they are all included here under that heading.

Several specimens have already been met with in the foregoing groups (**6, 12, 14, 16, 23, 30**), and most of the odd lids may have belonged to one or other of these types of lekanis. There are also small bowls of very similar shape but handleless. These I propose to deal with separately. The few miscellaneous vases listed in this section illustrate the poverty of ideas and decay of craftsmanship in the final stage of vase-painting in Euboea. They are introduced by a pyxis

⁵ See Richter and Milne, *Shapes and Names* 23 f., fig. 149.

covered with a pattern of oblongs resembling dominoes, with a lid on which a shallow, handleless bowl serves as a knob.

31. Athens Nat. Mus. 1660, from Eretria. Pyxis with lid. H. of receptacle 0.11 m. (PLATE 57: 3.)

32. Marburg University, from Eretria. Lekanis, lid missing. Diam. 0.11 m. (PLATE 57: 5.)

33. Athens Nat. Mus. 519 CC1121, from Eretria. Lidded lekaneis. Diam. 0.09 m. (PLATE 57: 6.)

34. Chalcis, from Euboea. Lidded lekaneis. Diam. 0.14 m. (PLATE 55: 6.)

35. Athens Nat. Mus., from Eretria. Lekaneis, lid missing.

Diam. 0.115 m. The laurel wreath on the receptacle is like that on the lid of **34**. (FIG. 4b.)

36. Athens Nat. Mus., from Eretria. Lekaneis, lid missing. Diam. 0.112 m. Unusually pale clay, sharp zigzags, and the use of panels in the handle zone is uncommon. (FIG. 4a.)

37-42. Eretria Museum. Fragments of at least six specimens of receptacles with a zone of vertical lines, either straight or wavy or both mixed.

Only three of these floral vases have human figures among the palmettes and lotuses, and from them little can be learned. The slim women in silhouette on the Würzburg hydria have little in common with the liberally incised figures on the Athens hydria, and still less with the coarse heads on the lekaneis from Eretria in Athens (**33**, PLATE 57: 9).

The clay is usually a warm yellow or brown and the surface is more often than not heavily ruddled. In a large proportion of the vases of all shapes there is a reserved band at the bottom of the body immediately above the junction with the foot. This is found on eleven of the vases listed here (**12**, **14**, **15**, **22**, **24**, **25**, **26**, **28**, **31**, **33**, **36**).

By far the commonest vase shapes are the pyxis and the lekaneis, and, as we have seen, there are several varieties of both. Among the products of the neighbouring Boeotian workshops, of which the large collections of floral vases in the museums of Tanagra and Chaeronea must be a fair sample, the kylix predominates and the pyxis and the lekaneis are rare. For the pyxis in the shape of the nuptial lebes with a low foot (type 2) I have kept the traditional and non-committal term 'stamnos-pyxis', reserving 'nuptial lebes' for the larger kind with double handles so frequently portrayed in wedding scenes of the period. The very common vases of the stamnos-pyxis shape, though probably used for some everyday domestic purpose, are certainly copies on a small scale of the lebes gamikos. It may be significant that the outstanding vase shapes in Eretria in the sixth century were the lebes gamikos (on a tall foot)⁶ and the lekane (lidless).⁷

To conclude, we have over forty vases in which can be seen the work of various potters and painters, but with common strands running through the patterns of practically all. Eleven of these are in Chalcis Museum, while sixteen are from Eretria. Only one—the Würzburg hydria (**26**)—is said to have come from Boeotia. It is not known whence the lekaneis in Thebes (**12**) came to Thebes Museum. The few that strayed, if our information is correct, to Corinth, south Russia, and perhaps Lamia do nothing to invalidate the overwhelming evidence for Euboean origin. Chalcis Museum contains vases not merely from local excavations but also from other parts of the island. It may be that the vases assembled here include products of shops in various localities. We might be justified in attributing vases that show the lotus of groups A-D to Chalcis, and perhaps those with the trident lotus and its variants to Eretria, but for certainty we need more exact information about the finding places of our vases and a greater quantity of finds. There is, however, already adequate material to show conclusively that vases with patterns such as have been described and illustrated here were made in Euboea.

A. D. URE

⁶ BSA xlvii (1952) 31 f.

⁷ JHS lxxx (1960), 160 ff. I retain the form lekane for the lidless variety, and lekaneis for the lidded; see *Metropolitan Museum Studies* iv (1932) 18 f. Recently the excavators of

the Athenian Agora have used the name lekane for a much deeper lidless bowl with handles of a different shape from those of lekaneides; see Sparkes and Talcott, *Pots and Pans* (Agora Picture Book No. 1) figs. 13, 20, 22.

THE TEMPLE OF POSEIDON ON CAPE SUNIUM: SOME FURTHER QUESTIONS*

(PLATES 58-59)

THIS article continues my observations on the temple of Poseidon published in *BSA* xlv (1950) 78 ff. I begin with what I have recently noticed of the architectural detailing and decoration of this temple. Zschietzschmann (*AA* 1929, 223 f.) noticed a painted pattern of a very unexpected design on the inner taenia of the architrave. It is a well-kept rule in Greek architecture that the decoration of a moulding should echo its profile. So a taenia of rectangular section, assuming that it needed decoration at all, should have had some sort of Greek fret (for which see below). At Sunium, however, it has the Oriental Coil, an ornament which, in any case, is oftener seen on Ionic buildings than on Doric. In Doric, indeed, it is known to have established itself in only one position, on a certain type of flat clay cornice-revetment, probably invented in Corinth, found in a primitive form, and not quite, perhaps, in its canonical position, on the temple of Artemis at Corcyra,¹ and thereafter stereotyped on the monotonous, sub-Corinthian clay cornice-revetments churned out in Sicily during the century down to 480 B.C. At Sunium one can only suppose that the Oriental Coil brought the Doric architrave of the side pteron into greater harmony with the Ionic of the east pteron.

Classical painted patterns, of course, have normally survived on marble buildings because the paint has partly protected from erosion the stretches of surface that it happened to cover. The more thinly painted surrounding areas have crumbled more swiftly away. So one can trace the boundaries of different painted areas on ceiling-coffers from the Athenian Propylaea, although one cannot judge the original effect nearly so well here as on the Temple of Ceres at Paestum, where the patterns on the coffers were carved as well as painted.

Was the other painted decoration of Sunium as extraordinary as this Oriental Coil? I was relieved to find from the inner face of this cornice- ('geison-') block that the internal cornice or 'epikranitis', the painted and moulded course immediately below the ceiling beams, had the normal decorative fret (PLATE 58*a*). Evidently, it resembled that still well preserved in some stretches on the Theseum at Athens.²

In its antae, however, Sunium resembles the Theseum less closely. The anta-capital of the Theseum was Doric, even if its base was not. Not so the anta-capital of Sunium. I see, on the south-west corner of the north-east anta (the only portion of anta-capital preserved), what I take to be a hawk's-beak above an ovolo. I seemed on the temple itself, and seem even on my photos (PLATE 58*b*), to be able to pick out the edged and overcurling leaves of an orthodox Doric hawk's-beak. It looks carved now, but this will be merely the effect of the paint—for hawks'-beaks were always painted, never carved. These painted leaves were apparently of comparable size to that of the carved eggs on the carved ovolo. I seem to see—surprisingly—a straight fillet and not an astragal between the hawk's-beak and the ovolo. Over this, at least, I seem to agree

* I wish to thank the Oxford and Cambridge Philological Societies, to whom I read this as a paper, for various criticisms and suggestions.

¹ See *Korkyra* i, Abb. 75 ff. On the evidence of Abb. 79 the Oriental Coil is to be restored along the lower part of the sima—rather higher up the revetment than was usual in Sicily. For cable-patterns on actual tile-edges, see

Perachora i. 114, and, for an unusually late example, Buschor, *Die Tondächer der Akropolis* ii. 10 f.

² See Koch, *Studien zum Theseustempel in Athen* (1955) Taf. 13*b* and Abb. 94.

with Blouet (*Morée* iii (1838) pl. 33; but I do not agree with him over the hawk's-beak. Blouet is the last person whom I know to have attempted a detailed measurement; and later students, like Orlandos (*AE* 1917, 214), have followed him. Miss Shoe has not considered the mouldings of this capital. But Blouet was wrong, and the *Unedited Antiquities of Attica* (1817) were right; see their chapter viii, pl. 10. This also shows the correct moulded profile of the architrave-crown in the east pteron, where Blouet restores a simple taenia. I differ from them only in seeing a carved ovolo, not a Lesbian Leaf on the lower part of the anta-capital.³

As I see this capital, it is the image of that at Rhamnous, which the *Unedited Antiquities* themselves give as a painted hawk's-beak above a carved ovolo,⁴ and again with a plain fillet between the two mouldings. Such an anta-capital, half Doric and half Ionic,⁵ is what one would expect of Periclean Attica. The nearest parallel to our antae is afforded by those of the Parthenon.⁶ Note the characteristic $\sigma\upsilon\mu\pi\tau\upsilon\varsigma\iota\varsigma$ of the design here, with no fillet or border between the hawk's-beak and the ovolo. Similarly, the Ionic frieze of the Parthenon rests immediately upon an entirely Doric architrave. The feeling of Rhamnous and Sunium is very different. But the form and grouping of their details argue that they were probably designed in the 30's under the influence of the Parthenon.

One now comes to the much harder question of the ceilings over the peristyles. A. T. Hodge,⁷ when at Sunium, noticed that the evidence for the ceiling-beams over the side peristyles suggested a very strange ceiling indeed. It is reasonable to believe that on the cornice-blocks the slight depressions in the upper surface of the inner cornice were intended to receive ceiling-beams. The actual widths of the depressions are not implausible—say, about 17 inches or just over 40 centimetres. This would give beams just about as wide as those over the side peristyles of the Theseum. But the intervals between the depressions are only about 8 inches wide (PLATE 58c, FIG. 1). So the ceiling would have seemed a continuous marble slab, broken only by grooves. Is such wasteful construction conceivable?

In my own reconstruction of over ten years ago⁸ I had, of course, bowed to Orlandos. I then knew nothing about ceilings, and I had to get my drawing finished. So I got the ceiling wrong. Hodge, having none of my inhibitions, had a good look at the geisa, and observed these awkward data. Orlandos published his restoration of the ceiling in *AE* 1917, 225. But the ceiling of his side (south) peristyle, to the left, does not correspond to the evidence of the geison-blocks.

Nor, according to Hodge, does that of the west peristyle, shown on the right. I had often discussed with Hodge the great difficulties the architect of Sunium and Rhamnous made for himself by placing his ceiling-beams so very high. Examining the site of Sunium for evidence as to how he surmounted these difficulties, Hodge found that the only fragment of Orlandos's larger ceiling-beams, 52 centimetres wide,⁹ was not in fact a normal ceiling-beam, merely part of a marble 'edging' for the ceiling of an end peristyle. He could see quite clearly that in section its preserved top slopes upwards from the outer to the inner edge. No ceiling-beam of Orlandos's larger size and with a flat top is ever known to have existed.

This, I think, is not surprising. For the ceiling of one end peristyle, at least, had no long marble beams. I figure one cornice-block (PLATE 58e), plainly from one of the fronts of the temple,

³ They are also right, as against Blouet, on the relative heights of the moulded band and the plain fascia below it. This is clear on several modern photographs. See, e.g., Rave, *Griechische Tempel* (1924) pl. 31; Warner and Hurli-mann, *Eternal Greece* (1953) 11.

⁴ Chapter VI, pl. 6. So far as I know, the anta-capitals of Rhamnous have quite disappeared. But Gandy's drawings are plausible and circumstantial.

⁵ For the tiers of mouldings on fifth-century Ionic anta-

capitals, compare the Erechtheum, or the Ionic temple of Locri.

⁶ Penrose, *Principles* pl. xxii.

⁷ Whom I must thank here for putting freely at my disposal the evidence in his book *The Woodwork of Greek Roofs* (1960), before its publication.

⁸ *BSA* xlv, pl. 8.

⁹ Published by Orlandos, op. cit. 225, fig. 19.

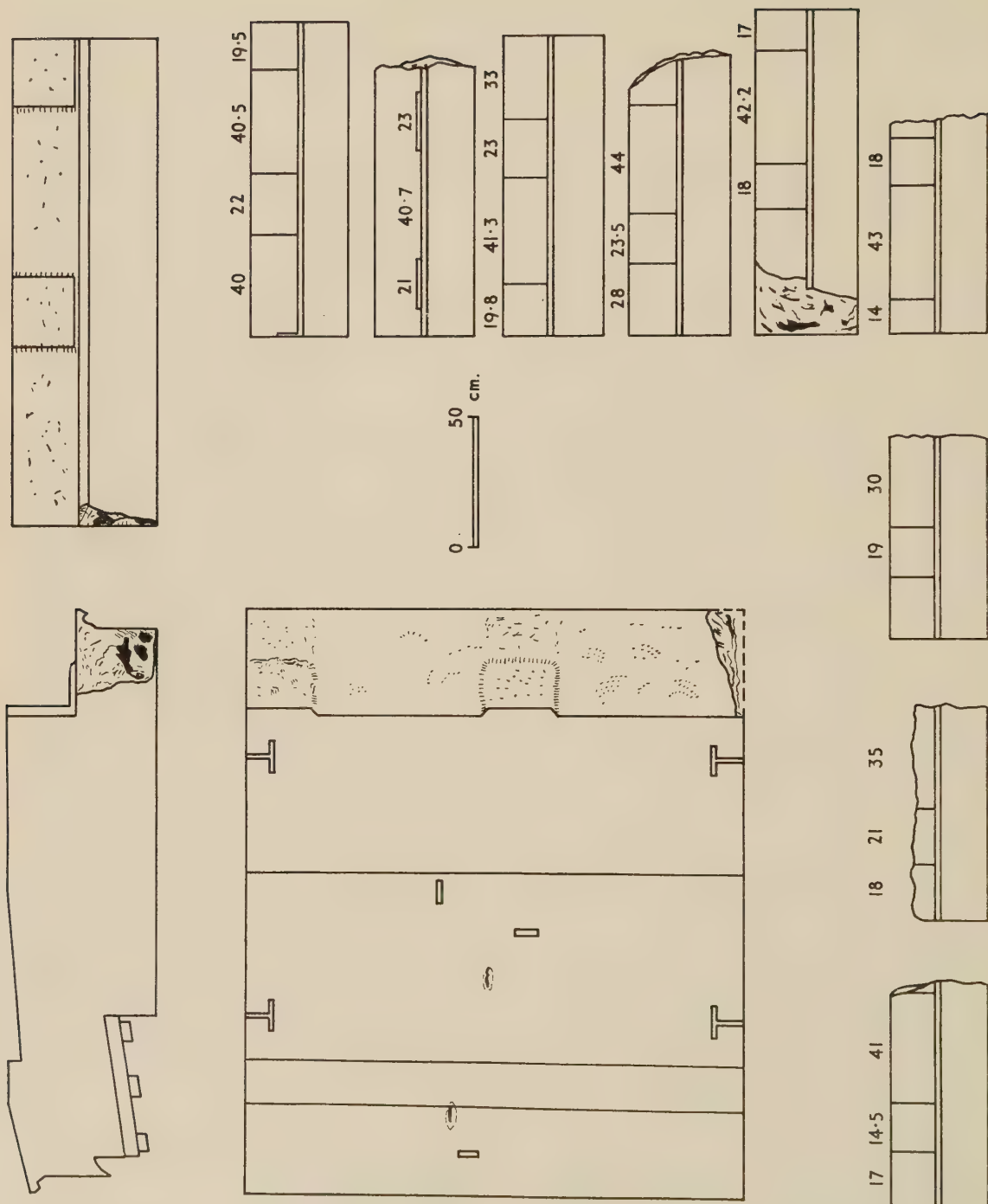


FIG. 1. COMPLETE GEISON-BLOCK AND REAR PORTIONS OF GEISON-BLOCKS, SUNIUM (DRAWN BY A. T. HODGE)

for it makes no provision for roof-tiles and shows the marks of tympanum-blocks. Its inner face is well preserved, and shows no depressions for ceiling-beams. The end peristyles of Sunium were unusually wide, especially the west peristyle, the width of which has always puzzled me.¹⁰ It would have been difficult to cut the many long thin strips of Agrileza marble—the marble used on Sunium—required on these peristyles for self-supporting ceiling-beams. It has many flaws. But the beams would need a length of at least 16 and 18 feet on the east and west peristyles respectively, compared with less than 8 feet for a normal architrave-block and a possible 12 or 13 feet for the great door-lintels, normally the longest blocks on a Greek temple. Greek architecture was largely dominated by the lengths of stone available.¹¹ The ceilings, then, of our end peristyles should have been of some different and lighter material, apart, of course, from the marble borders along their north and south edges. So the front cornice-blocks have no marks for stone beams, as appear on so many lateral cornice-blocks.¹² I suppose they supported a sort of timber frame or wall-plate, whose edge rested continuously upon them.¹³

A fine white marble fragment found by Mr. David Lewis and brought by him to the British School is apparently from a coffer-lid or coffer-frame in the ceiling of one of these end peristyles. Not having seen this fragment, I have had to draw it from information supplied by Mr. Sinclair Hood and the photograph given me by Mr. Lewis (PLATE 58*d* and FIG. 2*A*).

It is broken on all sides, and perhaps also at the back.¹⁴ The thickness preserved is 3 centimetres. I do not see how the fragment could come from a metope—which would, I suppose, be just possible physically. The decoration, a painted bead and reel, seems most suitable for a ceiling. Normally, it adorns not coffer-lids but coffer-frames, as in the Theseum (FIG. 2*B*). Our bead and reel, however, is in an asymmetric border, so would have to come from the edge of the coffer-frame, where it rested on the ceiling-beam. The large plain surface, more than half the fragment, would thus have been invisible. But it is only 2 inches broad, and the original bearing surface on the ceiling-beams, to judge from the marble beam along the south end of the peristyle (above, p. 219), was about 5 inches broad. Nor are coffer-frames always much thicker than the coffers themselves—hardly thicker, for instance, at Rhamnous,¹⁵ and not at all in the Mausoleum.¹⁶ I think, then, that our fragment is from a frame rather than a lid. The whole ceiling-pattern would thus closely resemble that of Rhamnous (FIG. 8).

The size of the beads, nearly an inch in diameter, suits a wide ceiling with large coffers. They would be grossly out of scale with the small coffers, barely 6 inches wide, which, as we shall see, one seems compelled to restore over the side peristyles (pp. 224 f.). They are nearly twice as wide as the beads on the Theseum (FIG. 2*B*), which are of uniform size there, with outer ceilings varying from 6 to 10 feet in width. The beads of Sunium would look right on peristyles between 15 and 18 feet in clear width, and with coffers in proportion. So, in scale, our fragment would fit the end peristyles.¹⁷

¹⁰ Cf. *BSA* xlv. 80.

¹¹ Cf. Penrose, *op. cit.* 16. After describing the unequal architrave-blocks of the Parthenon, Penrose concludes: 'We may infer that stones of fourteen feet long and upwards were very rare', and shows that the Parthenon reached the limit with the blocks available.

¹² Not, perhaps, all. Hodge tells me he has seen one block of side-cornice without the marks for the beams—clearly a block from one side of the end peristyles.

¹³ Stones levelled to receive such a wall-plate could, I think, be called εὐθυνηρία τοῦ ξυλώματος. See the Delian Account of c. 280 B.C., quoted by Robert in *Délös* xx, *Trois sanctuaires sur le rivage occidental* (1952) 100: Φιλτήι αποδοντι υπὲρ Φιλωνίδου τους λίθους τους εἰς εὐθυνηρίαν του ξυλώματος του

ναοῦ του ἐν τῷ Ἀσκληπιεῖω. Euthyneria 'dans ce texte ne peut guère désigner qu'une assise appartenant aux parties hautes de l'édifice, et contribuant au maintien de la toiture' (Robert). See also his p. 96.

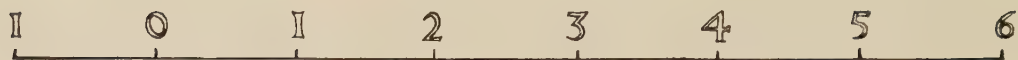
¹⁴ The unbroken backs of coffers and frames could, however, be quite rough. See, e.g., Koch, *op. cit.* pl. 14.

¹⁵ *Uned. Antiqu. of Attica* chap. vi, pl. ix.

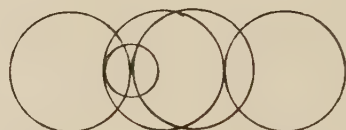
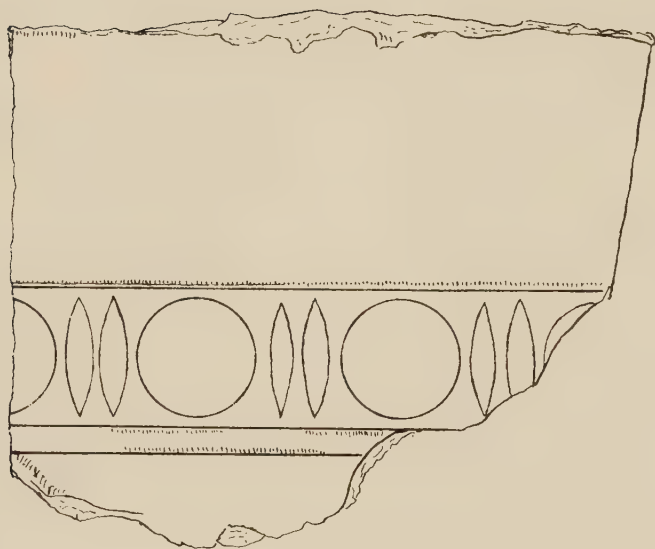
¹⁶ Lethaby, *Greek Buildings* fig. 33.

¹⁷ Coffers have normally bands of egg and tongue, coffer-frames of bead and reel. The carved coffers of the Epidaurian tholos show this well (Lawrence, *Greek Architecture* pl. 88*b*), as does the ceiling of the Nereid Monument, now in the B.M. See also the Erechtheum inscription, quoted below, n. 25.

INCHES



A



B

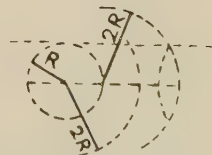
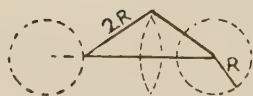
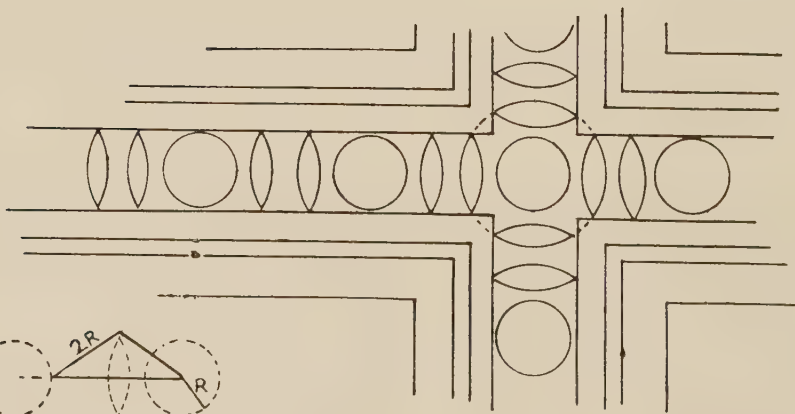


FIG. 2. A, FRAGMENT FROM SUNIUM. B, DECORATION ON COFFER-FRAMES, THESEUM (FROM STUART AND REVETT III, PL. 9)

The beads are compass-drawn circles, but the reels are drawn by hand. Each bead is three-quarters of its own diameter from its neighbour. But no subtle mathematical construction is used. Here Sunium seems most unlike the Theseum, where, according to Stuart, the whole bead and reel is laid out mathematically (FIG. 2B), an isosceles triangle, with its apex on that of one reel, having a base running from the centre of one bead to a point on the circumference of the other. This is nice. But the mixture at Sunium seems equally typical of the fifth century. Compare the sima *Olympia* Taf. cxxi, 2 (rather earlier, according to the text, p. 189).

The end peristyles of Sunium seem, then, to me to have had ceilings with wooden beams and marble coffering—the exact opposite of the construction I am forced to restore for the side peristyles. The strange ceilings of this temple are due partly, I think, to the brittleness of the marble.

The Agrileza marble used at Sunium splits very easily; and I suppose it cannot easily be undercut to the degree required for certain fine details. In this it is the exact opposite of the wonderful fine-grained hard limestone ('calcaire') exploited at Delphi in the fourth century.

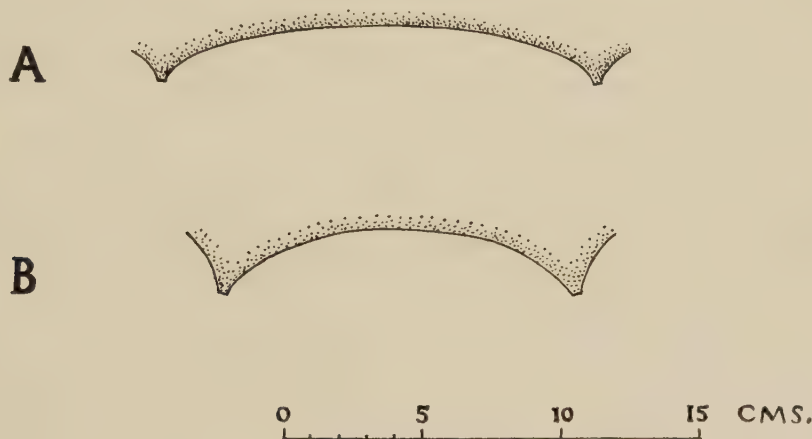


FIG. 3. COLUMN-FLUTES, JUST BELOW NECKING-GROOVE: A, SUNIUM; B, THESEUM

The pattern of the great floral akroterion at Sunium was—uniquely?—not pierced, but in low relief, so brittle was the marble.¹⁸ It is perhaps this poor marble that prompted the architect to make the flutes on the external columns as wide and shallow as he dared (FIG. 3). The shafts had only sixteen, in place of the normal twenty.¹⁹ On the Theseum the flutes, measured just above the stylobate level, are 6.25 in. wide, 1.1 in. deep, or just about $5\frac{1}{2}:1$ (Stuart and Revett, iii, ch. i, pls. 9, 12). At Rhamnous they are 4.5 in. wide and probably 0.77 in. deep, or rather less than 6:1 (although I admit I cannot quite understand Gandy's two plates, *Unedited*

¹⁸ See Orlandos, *ADelt* 1915, 22, fig. 27. And see now the full discussion in I. Kleemann, *Der Satrapen-Sarkophag aus Sidon* (1958), for whose theories, however, on the influence of an Asiatic Ionian School I can see no convincing reasons.

¹⁹ A. W. Lawrence has now broached the theory (*Greek Architecture* (1957) 180) that the columns were excessively high at Sunium, so as to look right from the sea, and that they were given fewer flutes, so as to appear thicker than they really were to a spectator at close quarters. I cannot

agree with this. Vitruvius, admittedly comparing internal with external columns, says that, to increase the apparent thickness of a shaft, one increases the number of flutes ('Sin autem videbuntur graciliores, cum exterioribus fuerint striae XXIIII, in his faciendae erunt XXVIII aut XXXII': *De Architectura* iv. 4. ii). My eye seems to confirm Vitruvius, at least to me, and to make a column of constant diameter seem thicker, the more flutes it is given (see FIG. 7).

Antiquities of Attica ch. vi, pls. 4 and 7). But at Sunium they are 7.95 in. wide and 1.2 in. deep, or $6\frac{1}{2}:1$. The arrises, therefore, protrude less, and are less exposed.²⁰

No coffers from the side-ceilings appear to survive at Sunium.²¹ The side ceiling-beams contain round peg-holes of a kind more suitable for wood or ivory than stone. Moreover, at a point roughly half-way along many of these beams there existed, I think, elongated dowel-holes, placed as near the edge as possible. Orlandos draws these on his beams, and I give a photo of one example (PLATE 59a; cf. FIG. 4(i)). Normally they are regarded as mere notches, trimmed for later repairs where the beams had got chipped. But there are so many of them, and in so constant a position, that one grows suspicious. And on one beam (PLATE 59b) the hole is evidently a dowel-hole and no repair; see the plan and section AA' of this beam, FIG. 4 (ii) and (iii). I made the beam 9 inches high from the soffit to the corona, the dowel-hole 3 inches deep. If we compare the probable position of the dowel-hole on this beam with that of a similar, less well-preserved cutting on another beam (FIG. 4 (i)), we see that it probably came near the centre of the span. The round peg-holes, similarly, are found only near the middle or the end of a beam. I have tried (FIG. 4 (iv) and (v)) to indicate the kind of ceiling that perhaps existed. Over each bay there might be a coffer-crate in two pieces, through which a single board, or perhaps two boards, hollowed out on the underside into the form of several square coffer-lids, could be pegged to the ceiling-beams. I find that nine coffers, each 6 inches square, would nicely fill the opening.²²

Can we guess the material? Not, I think, very profitably: ivory, perhaps, if one wished to imitate marble coffering; or some kind of wood gilt and painted. Most evidence for ceilings not of stone (e.g. the Erechtheum inscriptions—see Paton and Stevens, 338 and 409) points to wood and heavy gilding. The wood at least sometimes was boxwood, the most suitable for delicately carved coffer-lids. This is the *πυχσινό πλίσσιο* of the Erechtheum.²³

There is, however, a good argument against boxwood over our peristyles. It is a dark wood, and set in the dark cella of the Erechtheum would presumably be gilt rather than painted in the light colours perhaps more appropriate for a peristyle. The Greeks tended to enhance the darkness of their ill-lit interiors by the sombre materials that they used, and to relieve them only by the glitter of lamps and gilding. One thinks of the dark stone floor in the Tholos of Marmaria. In that of Epidauros, the internal ceiling-coffers had metal ornaments absent from those of the peristyle.²⁴ The Erechtheum, of course, was very dark inside, but, as Pausanias and the inscriptions show, treated to lavish metallic ornament. Perhaps ivory would be better on our peristyle. But either boxwood or ivory would explain why the coffer-space was so small.

These side-ceilings of Sunium seem unique, not only for their mixture of marble and some other material, but for the amount of fastening and pegging. On the Erechtheum, some stretches

²⁰ To see the different shapes of the flutes, and their greater shallowness at Sunium, compare Blouet iii, pl. 33 (Sunium) and Koch, op. cit., pl. 54 (the Theseum). For the mathematical construction of Classical Greek flutes, comprising for the most part arcs of circles, see Penrose, op. cit. 51 and pl. 21. See also Stuart and Revett, i, ch. 2 pl. 10, and iii, ch. 1 pl. 12. (The curve of the centre of each flute is usually an arc on a radius equal to the width, or chord, of the whole flute. But towards the arris the curve varies widely between temple and temple.) I find that when I compare the drawings of Koch and Bloues, the flutes of Sunium, though wider, seem to be shallower than those on the Theseum; see my FIG. 3. But this is because my figure is taken through the top of the shafts, and, according to Blouet, the flutes towards the top become shallower at Sunium. This, I

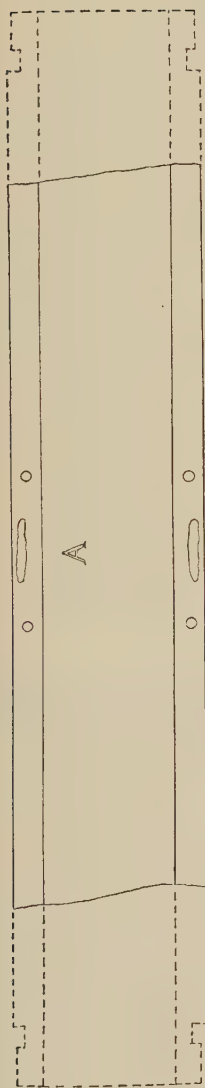
believe, shows that the designer wished with this marble to keep the same shallow figure all the way up the flute. The peculiarities of Sunium are due, I think, largely to the softness of the marble and the exposed nature of the site. To make his building more durable, the architect resorted to many tricks.

²¹ For the fragment of coffer-slab from the ceiling of our end peristyle, see above, p. 221.

²² The traces seem to show that the coffer-lids could have formed the modelled soffit of two boards, with a joint over the centre of the ceiling-span. This would make each 9 inches wide and nearly 3 feet long.

²³ Paton and Stevens, *Erechtheum*, Inscription no. xi, col. ii, line 31.

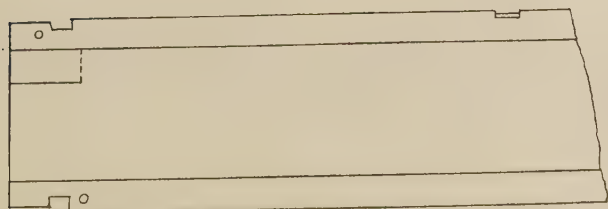
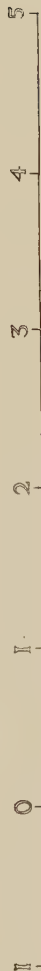
²⁴ Defrasse and Lechat, *Épidaure* 118 f.



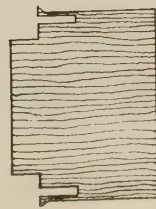
(ii)

A'

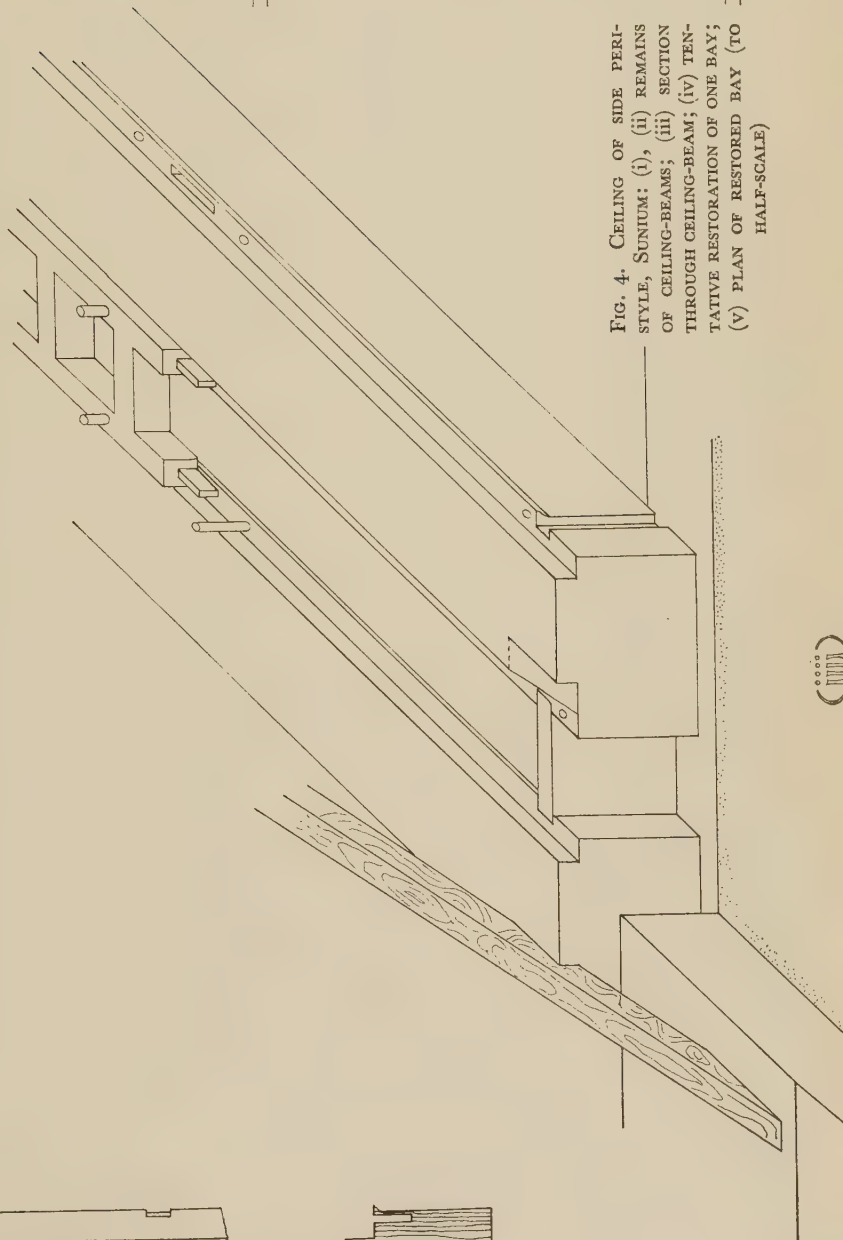
SCALE IN FEET



(i)



(iii)



(v)



(iv)

FIG. 4. CEILING OF SIDE PERISTYLE, SUNIUM: (i), (ii) REMAINS OF CEILING-BEAMS; (iii) SECTION THROUGH CEILING-BEAM; (iv) TENTATIVE RESTORATION OF ONE BAY; (v) PLAN OF RESTORED BAY (TO HALF-SCALE)

of astragalos-moulding were apparently pegged to the coffer-frames.²⁵ But most frames there merely rested on the beams, and the coffers on the frames; while small, delicately moulded strips were glued to the larger members. This construction is natural and right in a country of constant earth-tremors, where pegged ceilings would shatter, freely resting beams and coffers merely slide a little. I do not know why Sunium deviated from it; perhaps because the ceiling there was less homogeneous, and, while the beams were fairly massive and stable, the coffers were unusually small, and so likely to slip and break.²⁶

For a long time I remained, I hope naturally, unwilling to admit these enormous ceiling-beams, so narrowly spaced, over the side peristyles. I hoped at first to find some smaller beams, and to make them rest on the cornice-blocks not between the small raised patches, but upon them and enclosing them, rather after the fashion of normal anathyrosis. Two smooth raised edges would enclose a rough, sunken centre. A beam placed like this could not, of course, move easily. The construction would be the opposite of that in the normal Greek ceiling, but would work equally well. In another detail the builders of Sunium certainly reversed normal Greek construction. The normal Greek column capital has a *scamillus* on its upper surface, a slightly raised bearing surface over the central portion, designed to take the main weight of the architrave. This spared the more delicate outer edges of the abacus. But at Sunium, as we see from the soffit of an architrave-block (PLATE 59c), the abacus was apparently hollowed very slightly, and the architrave given a slight projection to rest in the hollow. The method seems to me sound, although rather harder to apply than the normal. But I know no other Greek example. Could one have had a similarly unique ceiling? Hardly, for we have no small beams, and quite a number of a size suitable to the presumed bearing-surfaces on the blocks (they are generally 1 or 2 inches narrower, giving a reasonable margin for possible movement). Moreover, the beams that we have are quite clearly from the side peristyles. They all have, on their outer ends, sloping cuttings to allow room for the roof-rafters (cf. PLATE 59a). Orlandos drew one of these, without interpreting it.²⁷ So we must assign these beams to the side peristyles.

We find that, further, these beams observe the unit—i.e. they are spaced at an interaxial distance of 25 inches, or 63 centimetres, just half the unit, the combined width of triglyph and metope, which is 126 centimetres.²⁸ This is satisfactory. For ceiling-beams also observed the unit over the side peristyle of the Theseum,²⁹ and apparently at Rhamnous.³⁰

In normal Greek roofs every pan-tile is supported down its sides by a rafter. The cover-tiles, which protect the joints between the pan-tiles, thus come directly over the rafters. We have the cuttings to give head to the rafters (see above) on several ceiling-beams. They are all of similar width, and in similar positions. So we can assume that rafters and roof-tiles, too, observed the unit. Moreover, we have the bearing-surfaces for the ceiling-beams on the rear of the cornice-blocks. Surely, then, we can see where the rafters met the cornice-blocks, and consequently how the antefixes, the ornamental ends of the cover-tiles, were related to the mutules and viae. We know that Sunium had antefixes, not a continuous upturned sima. For Orlandos observed and figured³¹ a block, which seems to have vanished now, marking the return and stop of the raking

²⁵ See, e.g., Paton and Stevens, Inscription xi, col. ii, lines 19–21:

αστραγ[αλον επ[ι] γομφοσαντ[ι] ε[πι] τ
εν κλιμ[ακ]ιδ[α] π[αρα]λαβοντι τετορ[υ]
ευμενον: κ.τ.λ.

²⁶ As Mr. Lacey has reminded me, the gales that rage on this site may well have persuaded the architect to set his ceiling-beams close to one another, and to fasten the coffers tightly.

²⁷ *AE* 1917, p. 226.

²⁸ *BSA* xlv. 82.

²⁹ Stuart and Revett iv², 'Further Elucidations' (Jenkins), 1.

³⁰ *BSA* xlv. 104. My words, however, are not clear there. I was surprised to find this architect observing the unit at Rhamnous even in the ceilings of the *end* peristyles. For those of the *side* peristyles he now seems to me to have observed it in all three temples.

³¹ *Adelt* 1915, 17.

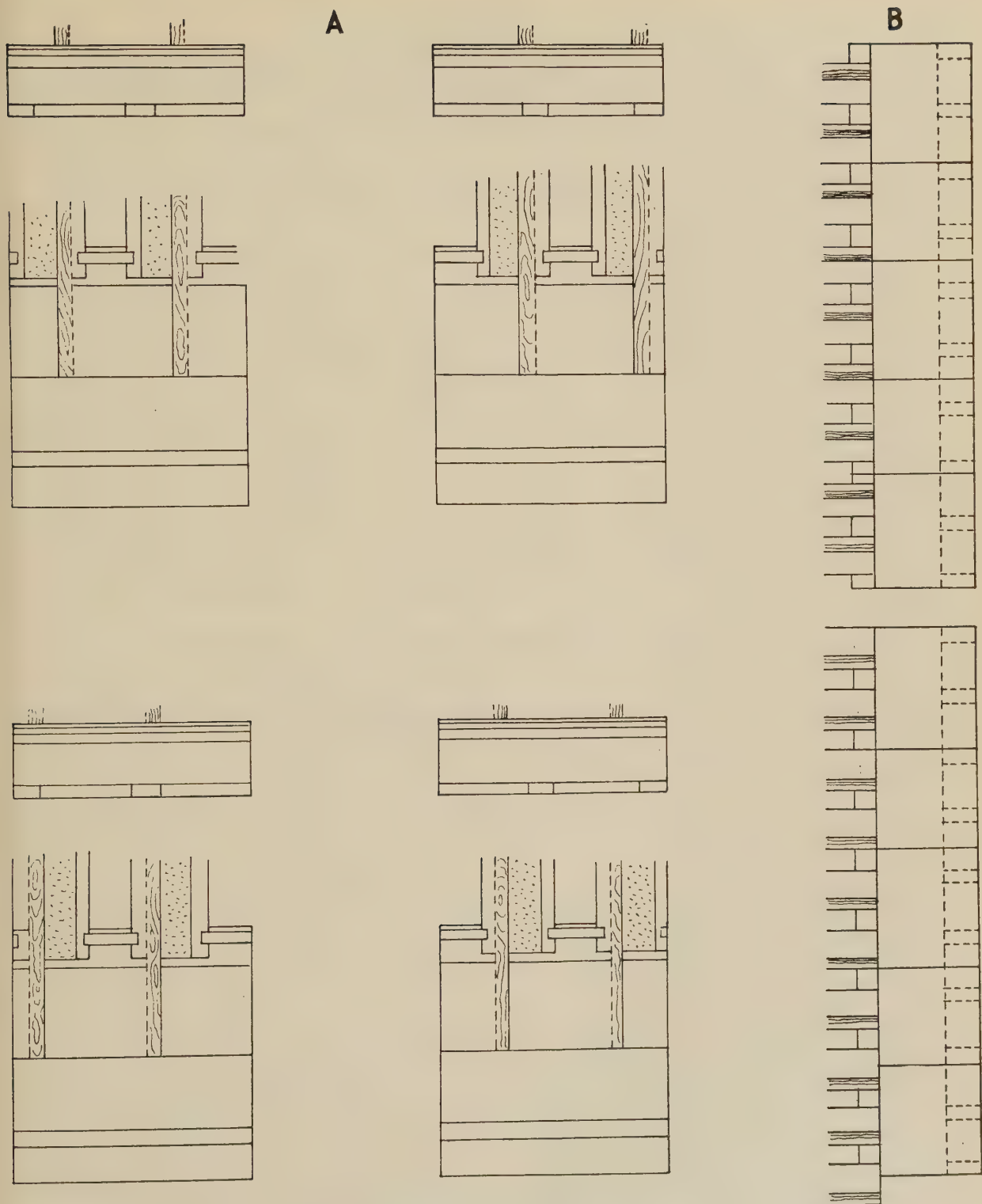


FIG. 5. CORNICE-BLOCKS AND RAFTERS, SUNIUM

sima. As on the Parthenon, the raking sima was returned along the corner akroterion, and then stopped. But the junction with the pan-tiles at Sunium was rather strange. Orlandos must have seen this block, which no modern scholar could have invented.

Surely, with all these data, we can now place our antefixes. Yet I am very unhappy, and feel confident of no solution.

Because of their size, I could not turn over the cornice-blocks, many of them half-buried. Consequently, I could not relate the mutules on their front soffit to the spaces for ceiling-beams on the rear of their upper faces.

Several of these surviving cornice-blocks show the marks of two complete ceiling-beams and two complete intervals. I show drawings of two (FIG. 6). One must remember that the depressions were a little wider than the ceiling-beams they were meant to receive. On these two blocks, the marks ran in opposite directions. The first had the left-hand edge of a beam, the second that of a space aligned on its own left-hand edge. Besides these blocks, others exist which show a more ragged alignment with the ceiling-beams (FIG. 1). This is what one would expect. At some point on every side of a classical temple the joints of the cornice-blocks must 'break step', so that there may be exact symmetry between the important corner-blocks. Joints down the centres of mutules were normally not encouraged,³² while they were normally unthinkable down the centres of viae (where Cockerell places them in his reconstruction of Bassae.³³ So at Sunium one might expect the ceiling-beams to rest neatly on the corner-blocks down only one half of each side (cf. FIGS. 1 and 6). After two or three transitional blocks the joints would have been shifted to one side or the other by the width of one via, or about 5 inches (12 centimetres) at Sunium. This has evidently happened with Hodge's left-hand cornice-blocks (FIG. 1).

At present we have evidence for the displacement shown below on my diagram (FIG. 5 (b)), not for that above. The ceiling-beams fell in some cases exactly on the corner of the cornice-block, in others over the joint between two blocks. I know no evidence of joints below the spaces; and it is obviously better construction to rest the massive ceiling-beams, rather than the flimsy coffers and returns, on the joints of the cornice. My diagram shows that it is impossible to break joint, and keep the ceiling-beams and rafters in the same position relative to the cornice-blocks. To the left of the diagram are the plans and elevation (showing both the blocks and the rafters) of four hypothetical geison-blocks (FIG. 5 (a)), illustrating the four possible ways compatible with our evidence of disposing the ceiling-beams, and rafters on the 'tidy' half of side cornice. The rafters, I think, were meant to come above the ceiling-beams, to avoid the delicate coffer-frames and lids. But here I face another difficulty. I think I have drawn the rafter-cutting on my ceiling-beam a little too wide, whereas in Hodge's drawing it seems a little too narrow (cf. PLATE 59a). I measured these rafter-cuttings as about $2\frac{1}{2}$ to 3 inches wide. This would be a small scantling for Greek rafters of square cross-section, designed to support large tiles. Yet I am loth to widen the rafter, for, in one case at least, a peg-hole for the coffering comes very close to the rafter-cutting. A rafter extending over the peg-hole would leave no room for the coffer-lid or even the coffer-frame, which, in my view, the peg should have pierced. Moreover, by making the rafters thicker, so as to extend to the moulded edges of the ceiling-beams, I do not correct the asymmetry of their placing over the mutules. This is clear from blocks (1) and (4). If one makes the rafters thinner in the only legitimate way, by moving their edges

³² The temple of Aphaia on Aegina is an exception. See Fiechter in Furtwaengler, *Aegina*, pl. 35.

³³ *Aegina and Bassae*, Bassae pl. iv. In my ignorance, I did not examine this feature when I visited Bassae. My photos

of cornice-blocks seem to make against Cockerell. Stuart and Revett iv, Bassae pl. iii, shows a cornice jointed on the principal façade in a normal way.

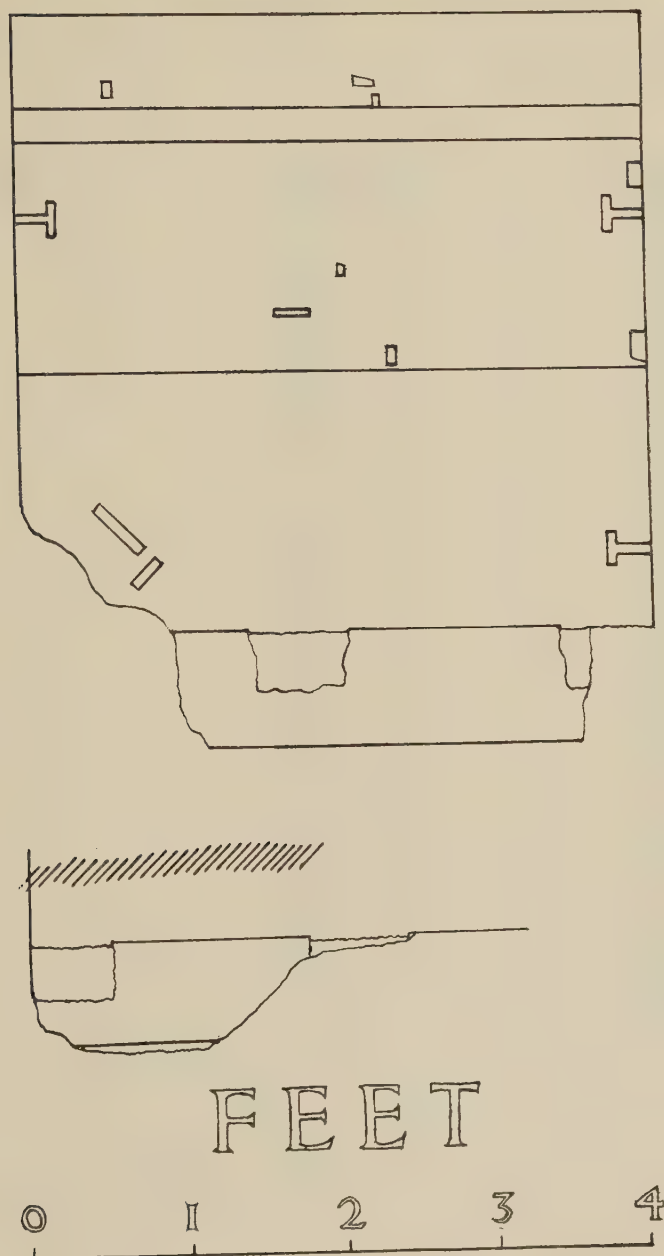


FIG. 6. CORNICE-BLOCK AND REAR PART OF CORNICE-BLOCK, SUNIUM

inside those of the ceiling-beams, then the placing of the rafters over the mutules becomes hopelessly eccentric.

It is apparently no easier to get the rafter exactly over the viae, for the same reason (cf. blocks (2) and (3)). Moreover, there is no analogy for rafters and antefixes over viae. Again, to get

them there, one has to abbreviate and distort the pan-tiles at each end of the temple, as is clear from Orlandos's diagram.³⁴ Finally, Vitruvius thinks of mutules as representing the original rafters, the lower ends of which were apparently visible at the eaves of the primitive Doric

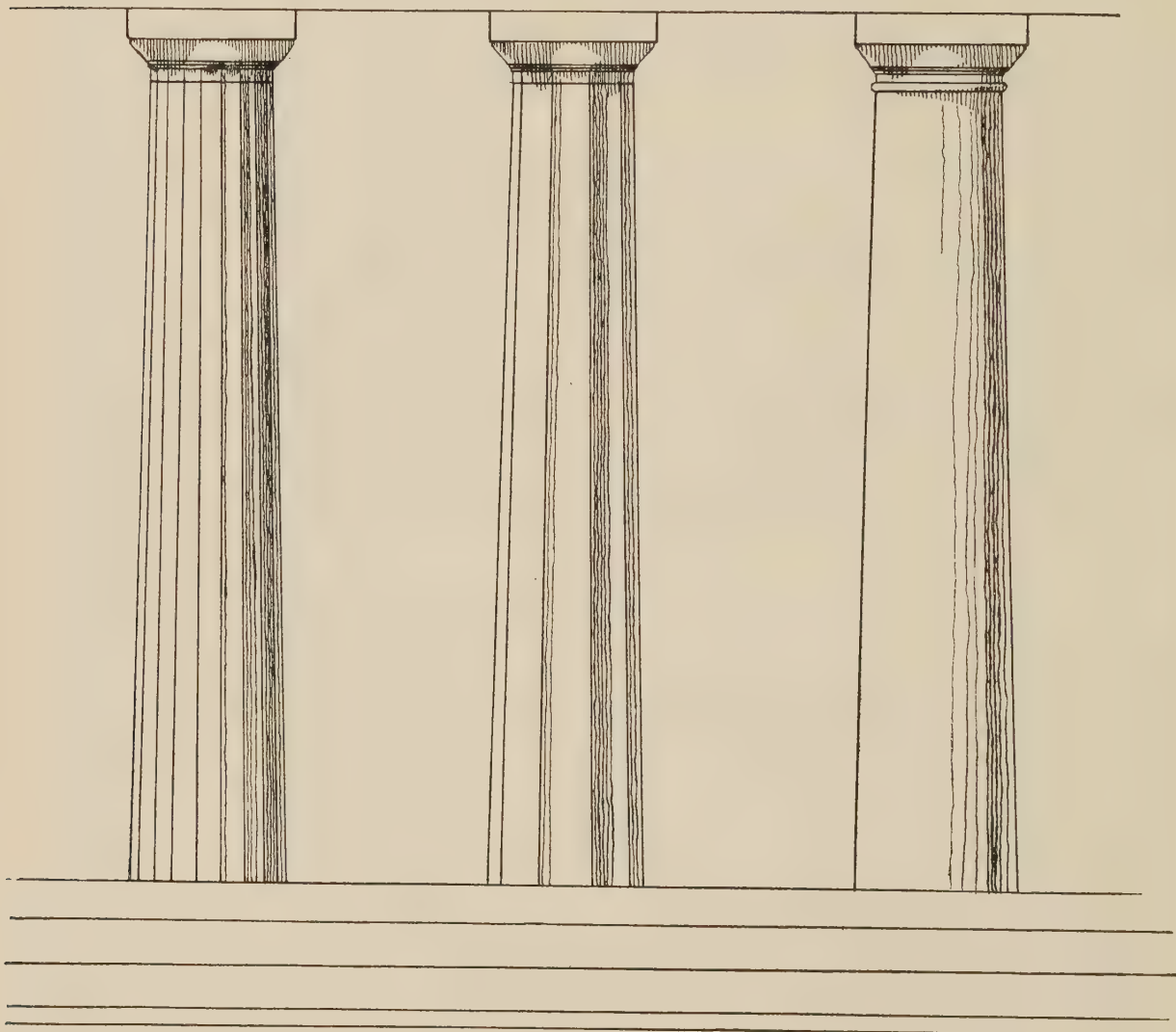


FIG. 7. UNFLUTED COLUMN COMPARED WITH COLUMNS OF TEN AND TWENTY FLUTES

building: '... e cantheriorum proiecturis mutulorum sub coronis ratio est inventa' (*De Architectura* iv. 2. iii). This is an implausible doctrine, for it would bunch the cantherii absurdly close. Yet so thin is the corona of a Doric cornice that one instinctively dislikes the thought of a rafter and an antefix resting on the via rather than the mutule. The eye, in looking at a Classical building, has its own logic for assessing the building's apparent strength—a logic which seems violated by antefixes over viae, especially if one remembers one's Vitruvius.

³⁴ *Adelt* 1915, 19, fig. 3.

Finally, if, as seems to be the case, the antefixes observed the unit, and yet were not disposed symmetrically over either mutules or viae, what happened to the roof in the centre of the long sides? How did it contrive to be symmetrical about the centre? I do not know, and must leave the problem to others—preferably to a survey-party able to measure accurately all sides of the existing cornice-blocks.

One last problem is raised by this cornice. Orlandos restores a course of small wedge-shaped blocks above the cornice-blocks proper, hemmed in between the corona and the ends of the rafters. I know of no analogy for such a course. The large eaves-blocks of triangular cross-section in such temples as the Parthenon or the Athenians' temple at Delos are different in size and function. I wonder whether Orlandos's blocks ever existed. Note how difficult they would have been to cut, with no angle a true right angle. Of course, Greeks often cut such intricate blocks, but usually for a good reason; and here they would merely thrust the rafters inwards, against the ceiling. As it is, these can hardly clear the ceiling, even when we throw their lower ends as far forward as possible towards the external face of the cornice-blocks.³⁵

Orlandos sees evidence for his course in the dowel-holes on the upper face of the cornice-blocks. Now Greek dowel-holes, as on the frieze-blocks at Sunium, normally mark the joints of blocks, and run at right angles to these joints. But on some of our cornice-blocks there are no dowel-holes of the right direction for Orlandos's course (PLATE 59*d*). I think that, strange as it may seem when timber was normally fastened to stone by round pegs, these oblong dowel-holes merely served for dowels of normal form to peg the rafters.³⁶ Whether or not Orlandos's course existed, the rafters in any case seem to have been dowelled at Sunium; as they were even less disputably in the early fourth century at Tegea.³⁷ Tugs on the dowels might threaten to split the rafters. But in fact the stress just here would have been very slight.

On some cornice-blocks we find, indeed, a variety of dowel- and peg-holes, hard to understand (cf. FIG. 6). But I refuse at present to interpret it in Orlandos's way. For the dowel-holes for the rafters are, even here, thrown right forward on to the cornice, and would thus make continuous stone blocks of Orlandos's width impossible.

This temple of Poseidon presents many other problems. There is, for instance, the size of the cella door. I should still defend the main lines of my earlier reconstruction, especially the dimensions I there gave the lintel-blocks—although I still do not know whether the opening was two or three lintel-blocks thick. If three, the jambs must have protruded into the cella, as at Bassae.³⁸ The threshold originally comprised three blocks in a line from north to south. The two side blocks supported the door-jambs or their equivalent. The central block has vanished, and the northern is now the best preserved. In his drawings of both surviving blocks,³⁹ Orlandos includes, but somewhat soft-pedals, a pair of massive dowel-holes in each. These have, indeed, been enlarged by robbers. But their depth and position surely show where the cross-wall was interrupted. As in the Parthenon, there were probably no proper jambs, only a thin veneer.

These pairs of dowel-holes were 10 feet from one another. The vanished central threshold block was 8 feet wide—the interaxial distance of the central pair of columns to its east—and

³⁵ Orlandos's illustration (op. cit. fig. 13) in fact ignores the relation of rafters and ceiling-beams. His drawing of the rafter-cutting in the ceiling-beam (*AE* 1917, 226), while obviously wrong in some points, yet agrees with my photos, and Hodge's drawing of a beam (left-hand side of his picture, as opposed to the reconstructed ceiling and rafter of the right-hand side) shows that the cutting was high and the slope shallow, implying a rafter thrown forward on the cornice-block.

³⁶ Here, however, I face another inexplicable difficulty. Assuming that the rafters only just cleared the ceiling-beams, I cannot legitimately get their lower end as far out as these cuttings on the geisa. See FIG. 6.

³⁷ Clemmensen and others, *Tegea*, pl. 44.

³⁸ These Mainland Greek temples, unlike those of Magna Graecia, seem seldom to have had at this point a staircase in the thickness of the wall.

³⁹ *AE* 1917, 220, nos. 11 and 12.

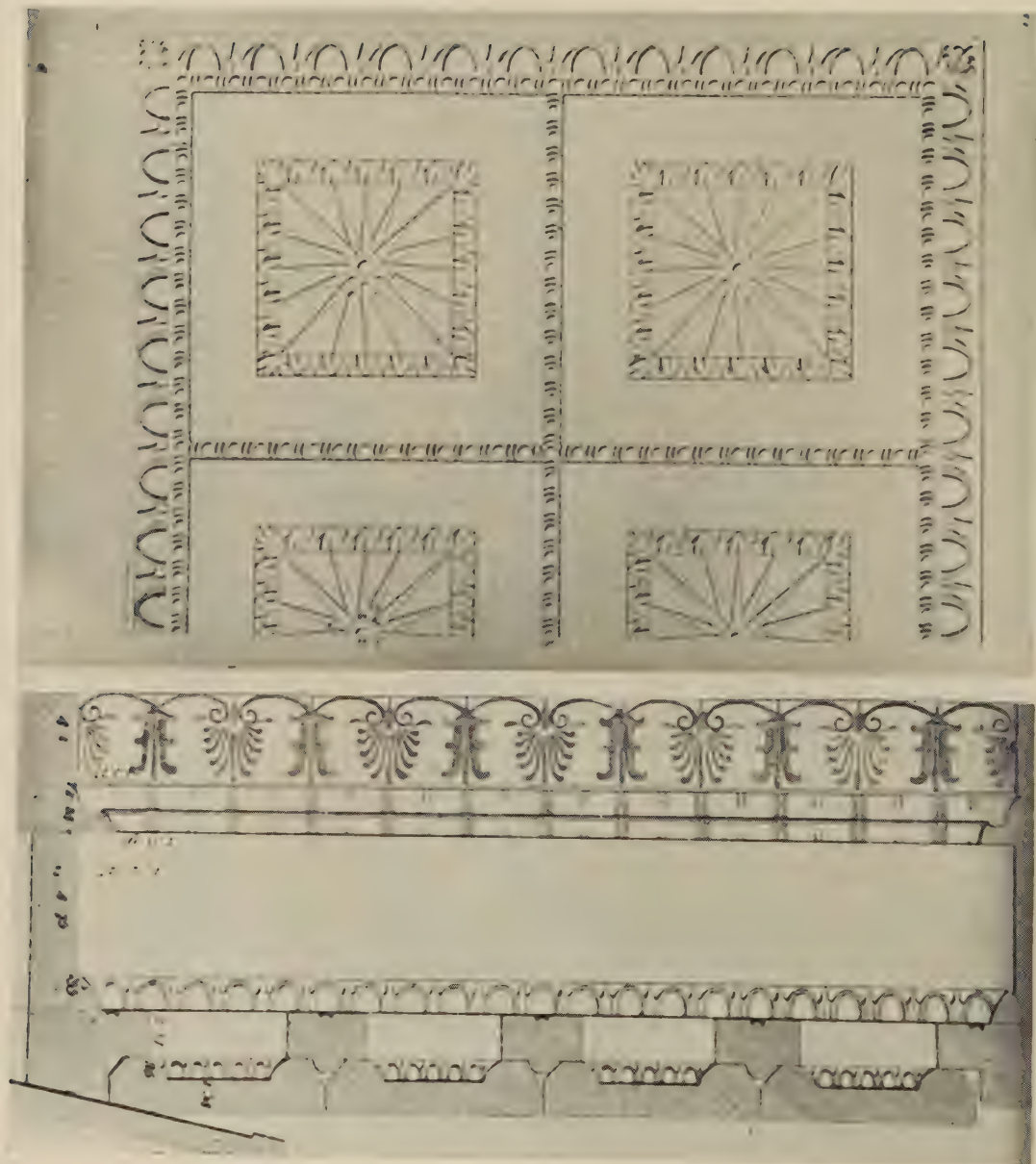


FIG. 8. CEILING OF RHAMNOUS, AFTER GANDY

each pair of holes a further foot beyond its edge. An opening 10 feet wide, or only slightly less, should have been about 20 feet high, to give the normal Periclean double-square; and this, further, would mean a lintel at the same height as the outer architrave—a highly satisfactory result.

Doric door-frames of the Classical period were normally plank-like, as one sees from the Parthenon or from the elaborate and rather wonderful traces in the Tholos of Marmaria. The frame at Sunium would have made a negligible difference to the opening. But, of course, though so thin, these frames or veneers⁴⁰ were very important in the whole design. I note that the stumps of wall attached to the East Wall of the Propylaea show no trace of any intention to veneer them. So I am most loth to believe that they were meant for doors of the sort that Dinsmoor envisages in his East Elevation of the Propylaea.⁴¹

Sunium was bound to have a hard time, exposed as it was and is to thunderbolts, pirates, and other hazards. Zeus showed little self-control in its destruction if his temple which he struck was our temple of Poseidon:

καὶ πῶς, ὦ μῶρε σὺ καὶ Κρονίων ὄζων καὶ βεκεσέληνε,
εἴπερ βάλλει τοὺς ἐπιόρκους, δῆτ' οὐχὶ Σίμων' ἐνέπρησεν
οὐδὲ Κλεώνυμον οὐδὲ Θέωρον; καίτοι σφόδρα γ' εἶς' ἐπιόρκοι·
ἀλλὰ τὸν αὐτοῦ γε νεῶν βάλλει καὶ Σούνιον ἄκρον Ἀθηνέων.⁴²

W. H. PLOMMER

ADDENDUM

Since writing this, I have had to consider the much later ceilings of the side peristyles in the temple of Apollo at Delos, reconstructed by Holland and Davis in *AJA* xxxviii (1934) 71 ff. from an inscription of 279 B.C. Here coffer-lids of terracotta were perhaps pinned by cylindrical pegs to timber coffer-frames. One is reminded of our peg-holes at Sunium. But (1) the side peristyles seem to have had no ceiling-beams at Delos, as they had at Sunium. The whole system of coffer-frames and pegs must have been different. (2) Terracotta coffer-lids should have been larger than the (evidently) tiny coffer-lids of Sunium. (3) I am loth to admit mere terracotta coffering into a Periclean temple of this sort. (4) Something should have remained of such cheap earthenware coffers. So terracotta coffering, though possible, seems very unlikely at Sunium.

⁴⁰ Whether of marble or timber, who knows? I still hesitate between Miss Lorimer's timbers and Dinsmoor's marble. On p. 154 of my *Ancient and Classical Architecture*

I have decided for timber.

⁴¹ *Architecture of Ancient Greece* 202, fig. 76.

⁴² *Ar. Clouds* 398-401.

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 [Φαιν]ομενο[ς] [Αδει]μαν[του] 184.
 [Φαι]νομ[ενος] Φησινου 183.
 Φαινομενος Φαινομενου 183.
 Φανις Ζηνων[ος] 182.
 Φανοπολις Αγγε— 182.
 Φε[ρ]εκλης Δεινιου 182.
 Φερεκλης Φερεклеως 184.
 Φιλισκος 174.
 Φιλισκος Τηλεφου 183.
 Φιλισκου *gen.* 182.
 Φιλιστης 182.
 [Φι]λιστη[ς] Αργει[ου] 185.
 [Φι]λτης 184.
 Φιλτης Ποσειδιππου 182.
 Φιλωτας Απολλωνιδου 183.

 Χαλαζοι 173.

 [.]ιλλας Διαν— 182.





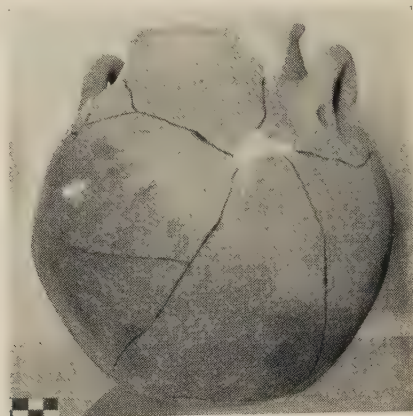
(a)



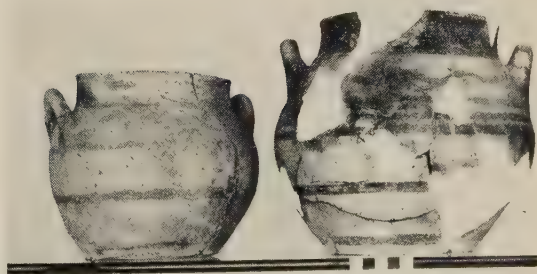
(b)



(c)



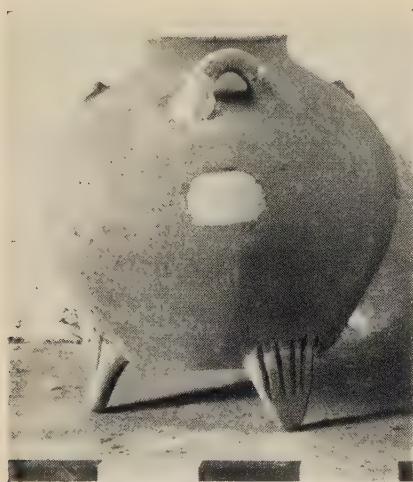
(d)



(e)

POTTERY FROM KAPHI

PITHOI AND JARS. (a) 80. (b) 147. (c) 96. (d) 23. (e) 15, 116.



(a)



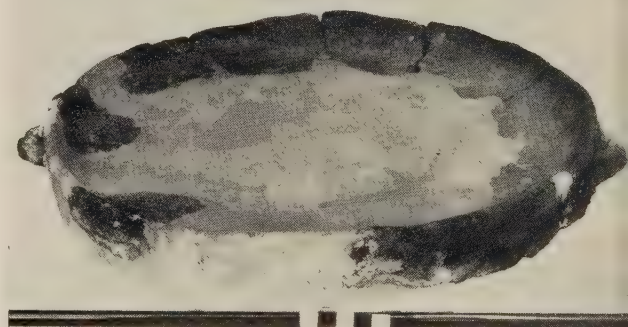
(b)



(c)



(d)



(f)



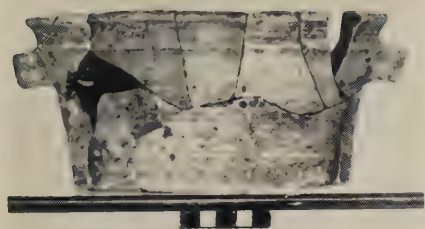
(e)



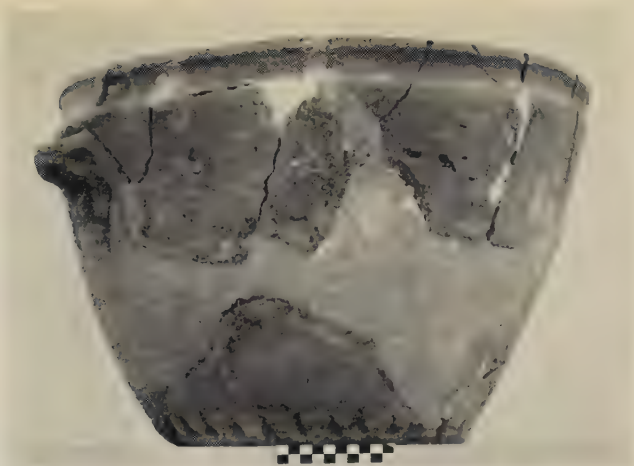
(g)

POTTERY FROM KARPFI

TRIPODS AND DISHES. (a) 137. (b) 80. (c) 43. (d) 14. (e) 26, 26. (f) 149. (g) 75.



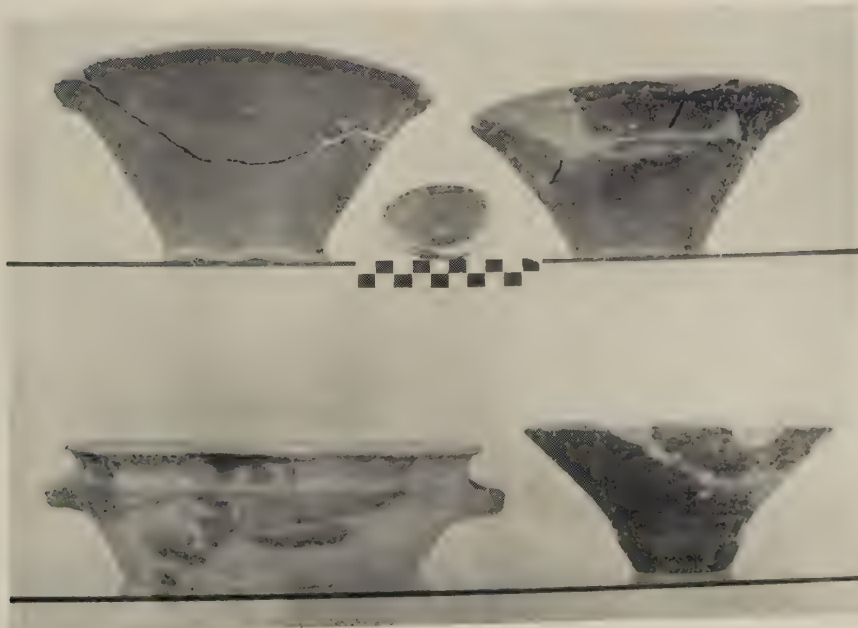
(a)



(b)



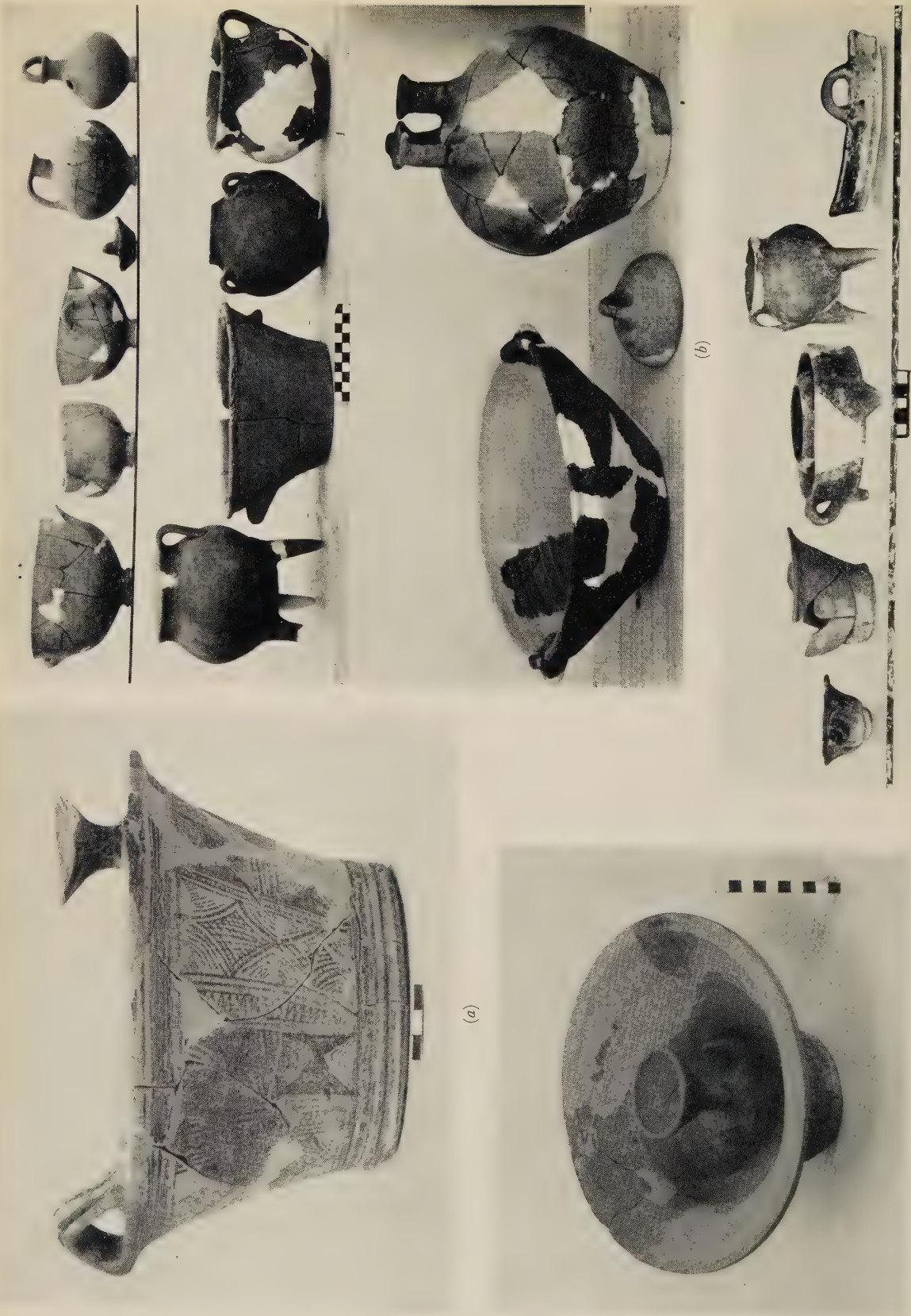
(c)



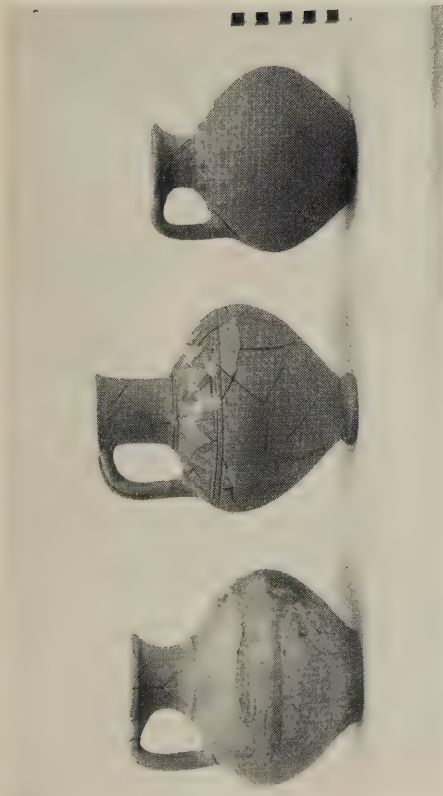
(d)

POTTERY FROM KARPFI

BASINS, DISHES, KALATHOI. (a) 150. (b) 147. (c) 147, 80. (d) 43, 3, 2, 39, 2.



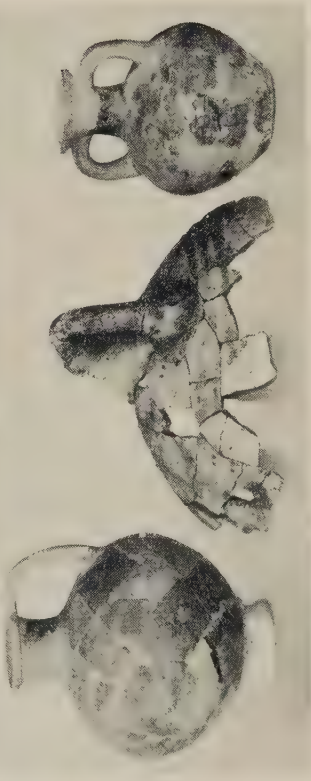
POTTERY FROM KARPFI
KALATHOI, GROUP FROM TEMPLE, ETC. (a) 68. (b) ALL 1. (c) 148. (d) 121, 61, 150, 23, 132.



(a)



(b)



(c)

(d)

POTTERY FROM KAPPHI

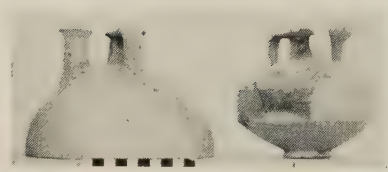
Jcs. (a) 23, 87, 114. (b) 26, 23, 23. (c) 70, 149, 115, 80. (d) 23, 149, 149, 11, 148, 57, 11, 149.



(a)



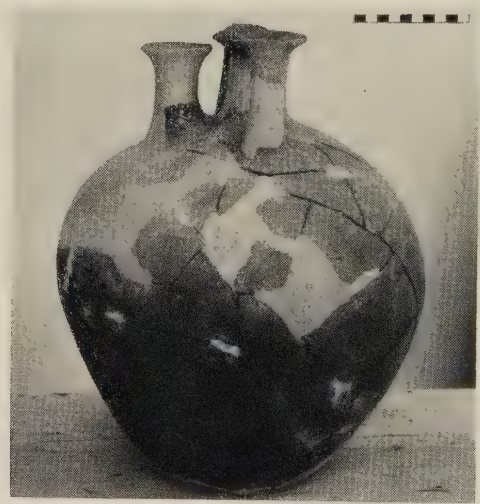
(b)



(c)



(d)



(e)



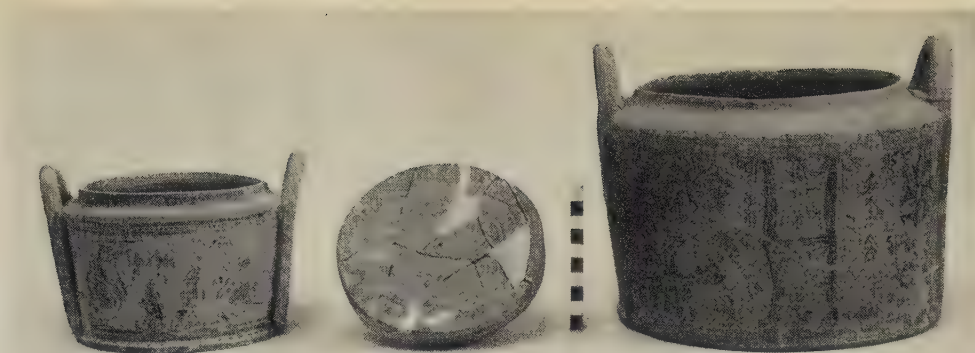
(f)



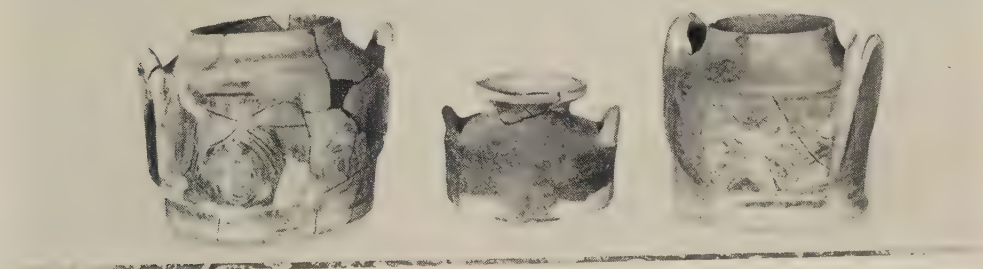
(g)

POTTERY FROM KARPFI

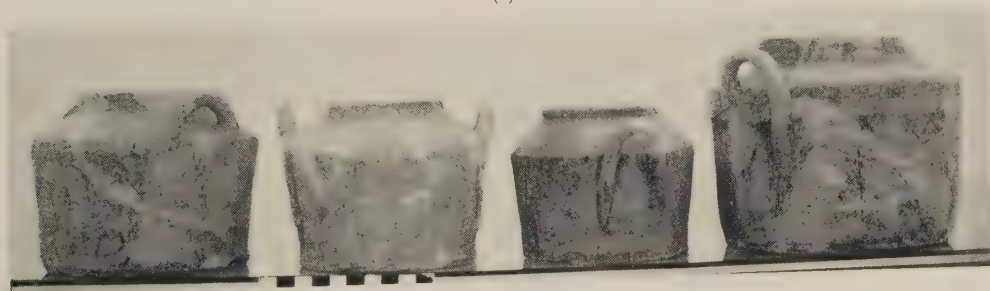
STIRRUP-JARS. (a) 23, 26. (b) 134. (c) 47. (d) 23. (e) 23. (f) 120. (g) 26.



(a)



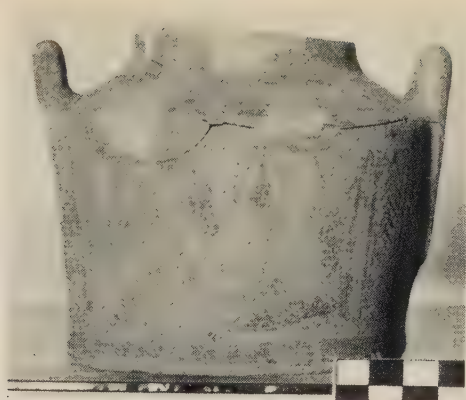
(b)



(c)

POTTERY FROM KARPFI

PYXIDES. (a) 114, 22. (b) 114, 115, 75, 80, 124. (c) 8, 14, 22, 147.



(a)



(b)



(c)



(d)



(e)

POTTERY FROM KARPHI

PYXIDES, TANKARDS, CUPS. (a) 14. (b) 22. (c) 26. (d) M 4. (e) A 1, A 1, A 3.



(a)



(b)



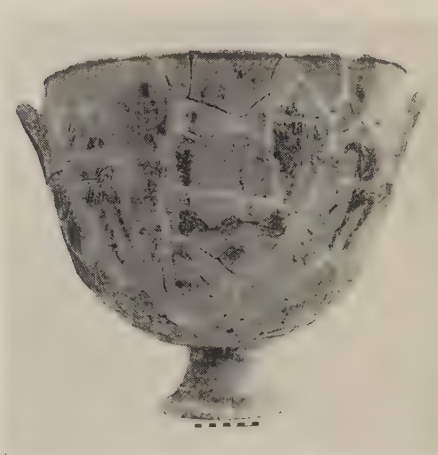
(c)



(d)



(e)



(f)

POTTERY FROM KARPFI

KRATERS. (a) 148-9. (b) 23. (c) 30. (d) M 8. (e, f) 131.



(a)



(b)



(c)

POTTERY FROM KARPFI

BOWLS, HUT-URNS, RHYTON, KYLIKES, LIDS. (a) 115, 115, 20, 27, 147, 33, 122, 123.

(b) ?, M 4, 3. (c) 47, 22.



(a)



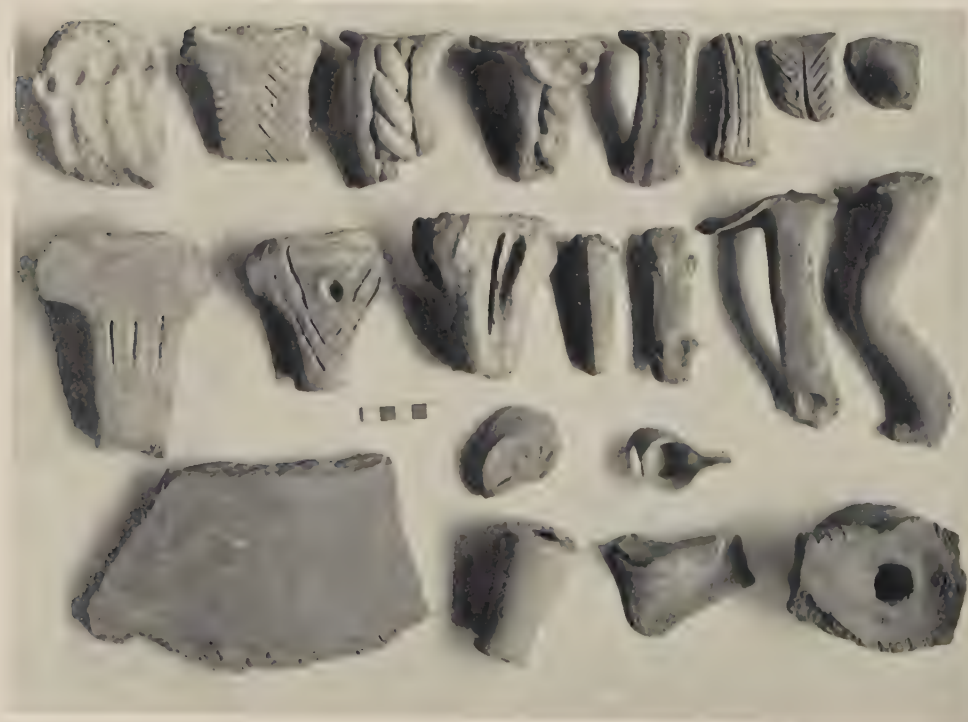
(b)

POTTERY FROM KARPFI

STIRRUP-JARS, ETC., FROM THE TOMBS. (a) M 3, M 8, M 4, M 11, M 11, M 14, A 1, M 4.
 (b) M 2, M 17, M 17, M 17, M 17, M 1, M 16, M 16, M 11, M 11, M 14.



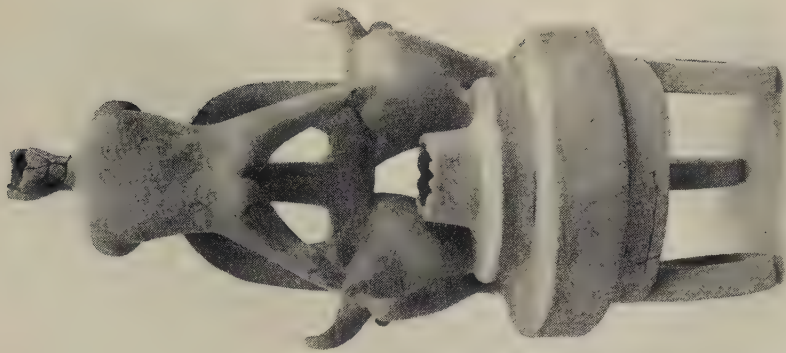
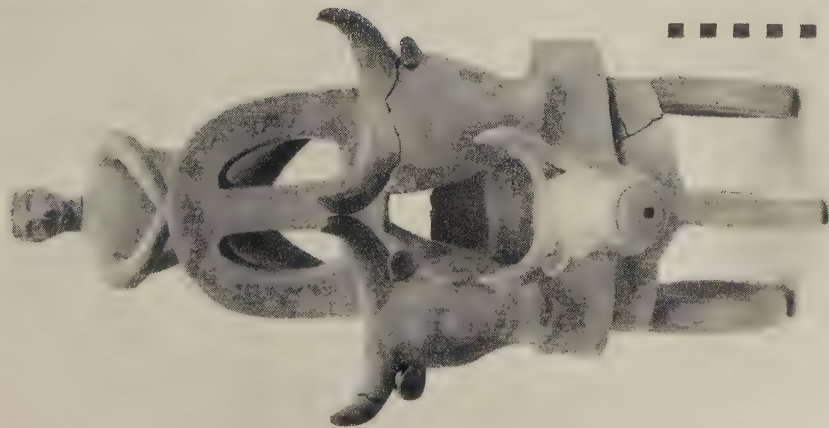
(a)



(b)

POTTERY FROM KARPFI

SPECIMEN SHERDS. (a) FROM PITHOI, JARS, DISHES, LIDS. (b) FROM JUG HANDLES, TRIPOD LEGS, LAMP HANDLES, ETC.



POTTERY FROM KARPPI
RHYTON FROM 27.



(a)



(b)



(c)

POTTERY FROM KARPPI
GODDESSES FROM I.



(a)



(b)



(c)

PREHISTORIC LACONIA I

- (a) VIEW OF TAYGETUS FROM THE MENELAION.
- (b) THE MOUNTAINS OF MANI FROM MAVROVOUNI.
- (c) MT. KOURKOULA AND THE MOLAIOI PLAIN FROM THE SOUTHEAST.



(a)



(b)

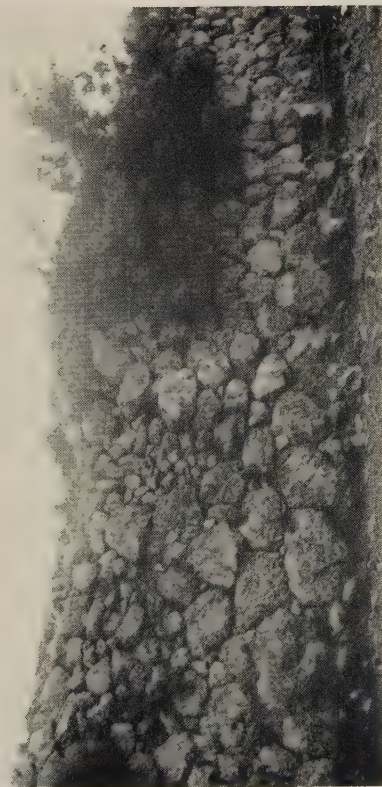


PREHISTORIC LACONIA I

- (a) PALAIOPYRYI FROM THE NORTHWEST. (b) PALAIOPYRYI FROM THE SOUTHWEST.
 (c) EARLY AND MIDDLE HELLADIC POTTERY FROM PALAIOPYRYI.



(a)



(b)



(c)

PREHISTORIC LACONIA I

- (a) AYIOS VASILIOS CHAPEL FROM THE SOUTH. (b) GERAKI WALLS ON THE NORTHEAST SIDE.
 (c) SHERDS FROM THE AMYKLAION (1), VAPHIO (2), SKALA (3), AND GANGANIA (4).



(a)



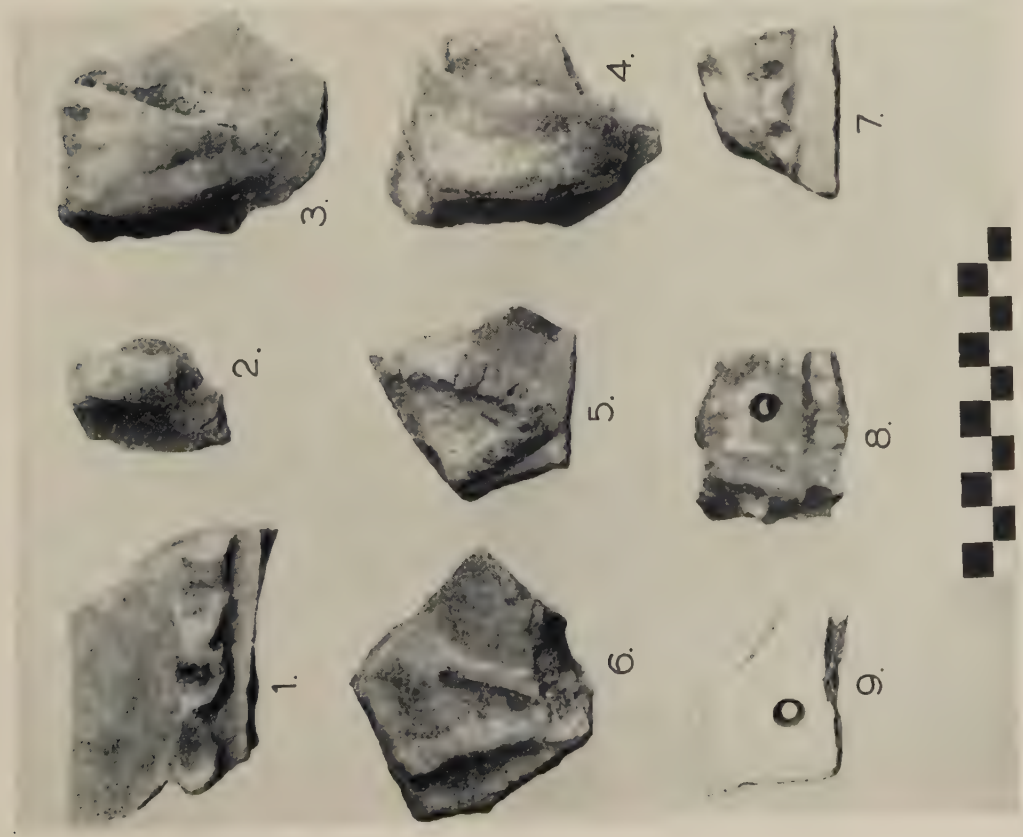
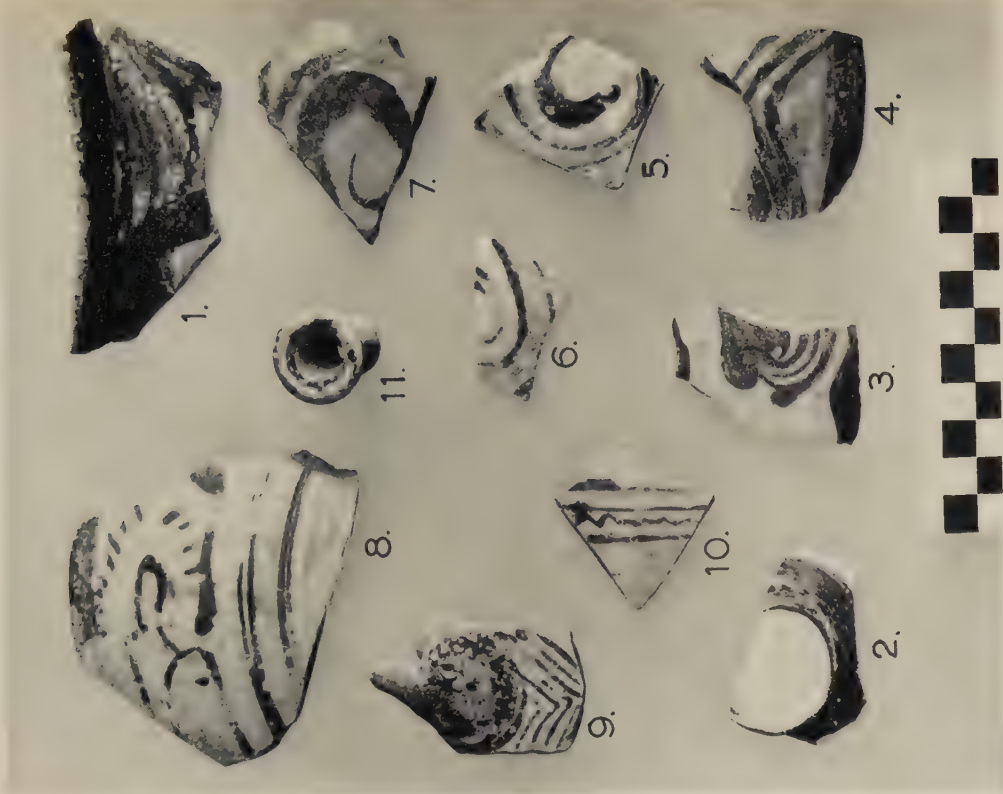
(c)



(b)

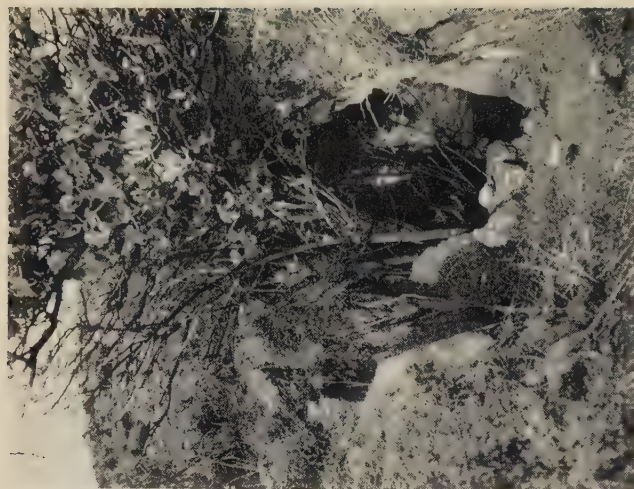
PREHISTORIC LACONIA I

(a) APIDIA FROM THE EAST. (b) POTTERY FROM APIDIA. (c) ANCIENT ROAD BETWEEN TSASI AND GRAMMOUSA, FROM THE NORTHWEST.



PREHISTORIC LACONIA I

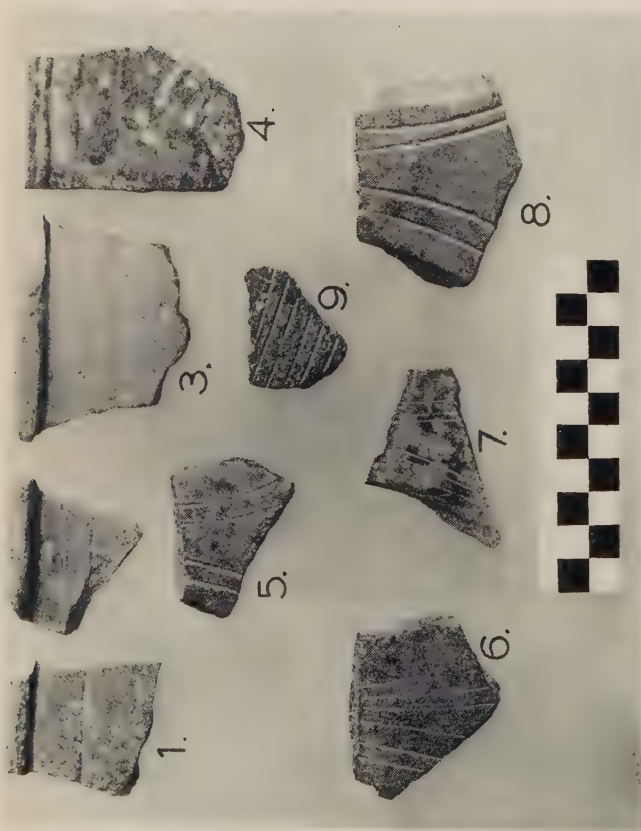
(a) NEOLITHIC POTTERY FROM AYIOS STRATEGOS. (b) MYCENAEAN SHERDS FROM ASTERI.



(c)



(d)



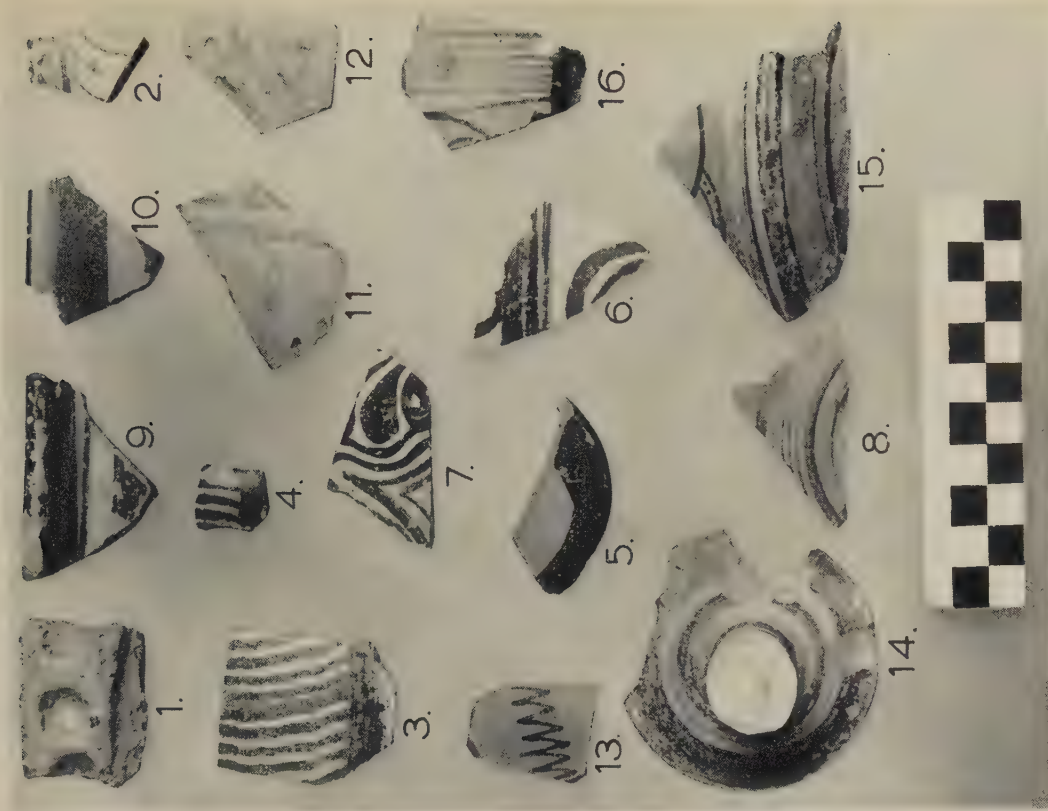
(a)



(b)

PREHISTORIC LACONIA I

(a) MIDDLE HELLADIC POTTERY FROM ASTERI. (b) ASTERI FROM THE NORTHWEST. (c) MYCENAEAN TOMB AT TSASI FROM THE SOUTHWEST. (d) PANAYIOTIS, LEKAS FROM THE NORTH.



(d)

PREHISTORIC LACONIA I

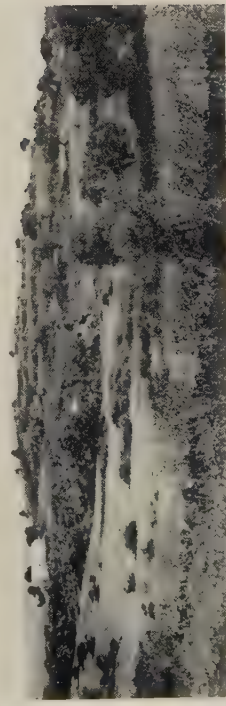
(a) AYIOS STEPHANOS FROM THE NORTH, (b) AYIOS STEPHANOS FROM THE EAST, (c) AYIOS STEPHANOS FROM THE SOUTHWEST, (d) PREHISTORIC POTTERY FROM AYIOS STEPHANOS.



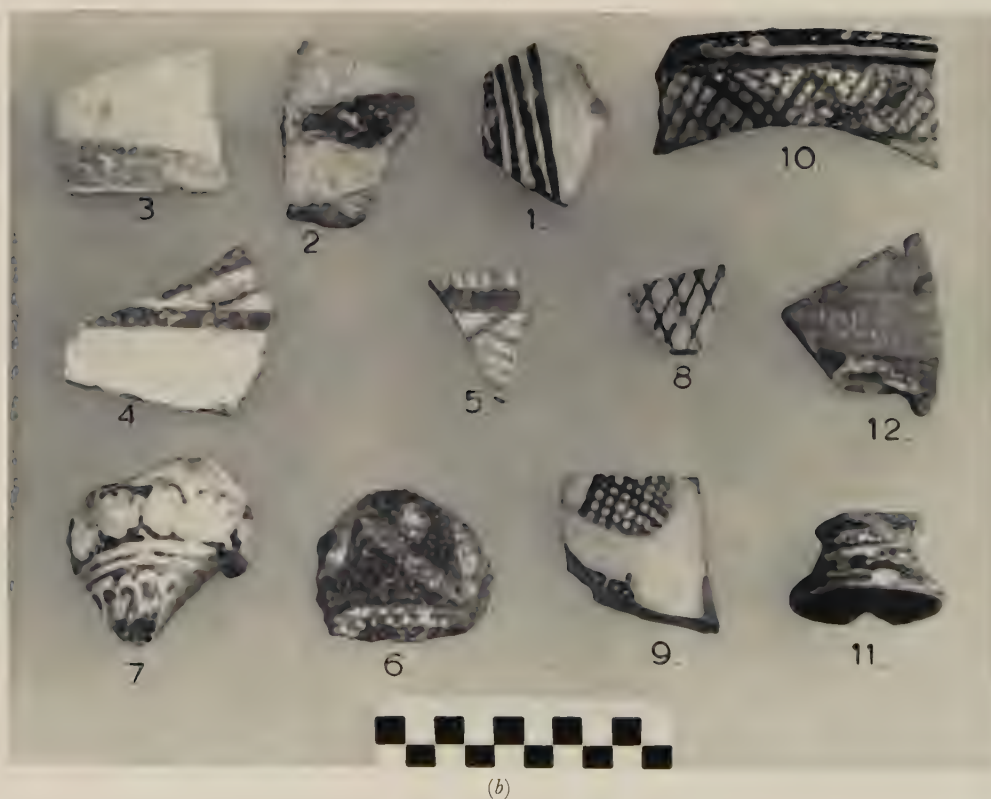
(a)



(b)

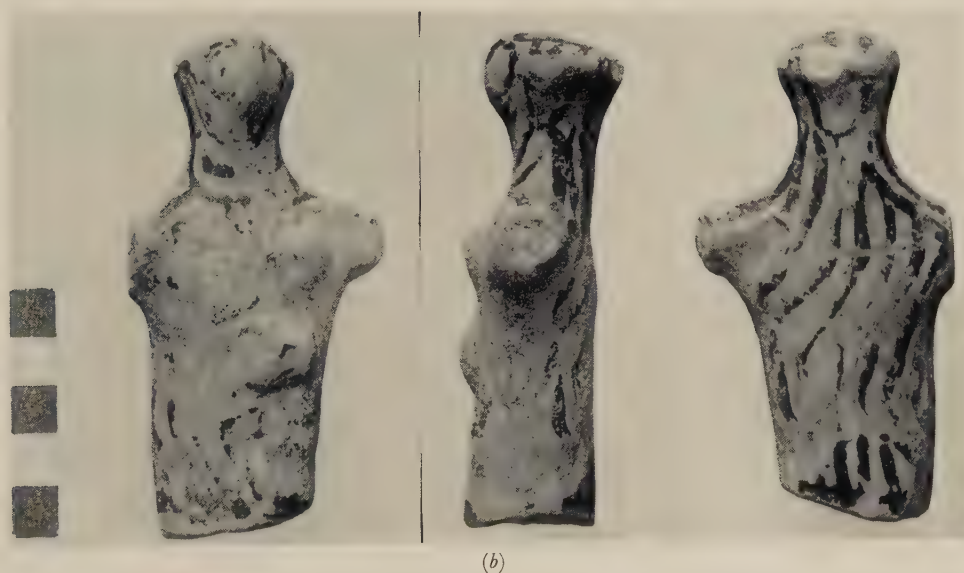


(c)



PREHISTORIC LACONIA I

- (a) EARLY HELLADIC POTTERY FROM THE HELOS PLAIN AND ELAPHONISI (14).
 (b) SHERDS FROM THE HELOS PLAIN, APIDIA (9 AND 10), DAIMONIA (8 AND 12), AND STENA (7).



PREHISTORIC LACONIA I

(a) PREHISTORIC FIGURINES (1-3 E.H.) AND SPINDLE WHORLS. (b) MYCENAEAN FIGURINE FROM LEKAS.
 (c) PREHISTORIC STONE IMPLEMENTS FROM LACONIA.

MAP OF SOUTHERN PELOPONNESE



PREHISTORIC LACONIA I

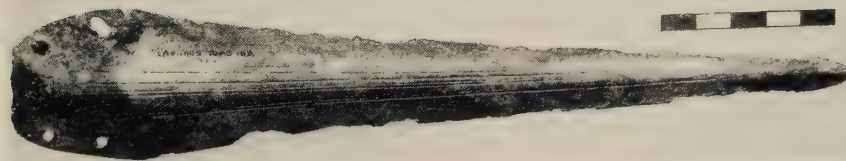
1. MAVROVOUNI. 2. PAIZOULIA. 3. LAGIO. 4. AYIOS STEPHANOS. 5. PANAYIOTIS, LEKAS. 6. TSASI. 7. ASTERI. 8. AYIOS STRATEGOS. 9. GANGANIA. 10. ANEMOMYLOS. 11. ANGELONA. 12. THE AMYKLAION. 13. KOUPHOVOUNO. 14. THE MENELAION. 15. CLASSICAL SPARTA. 16. KALAMATA (Gold Cups). 17. BELMINA. 18. LEPREON.



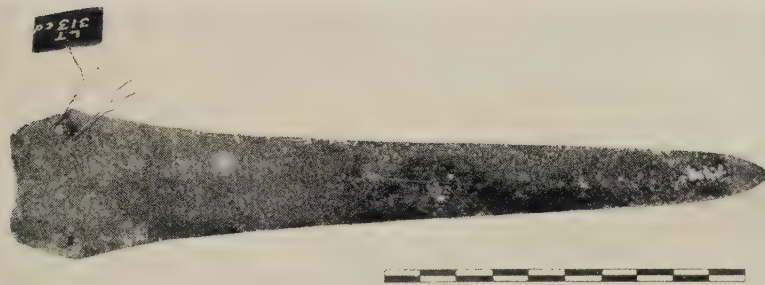
(a)



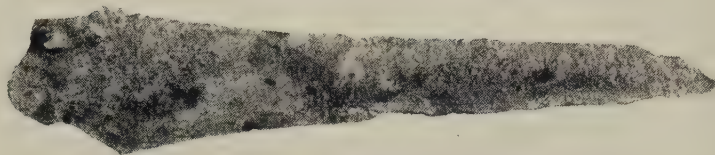
(b)



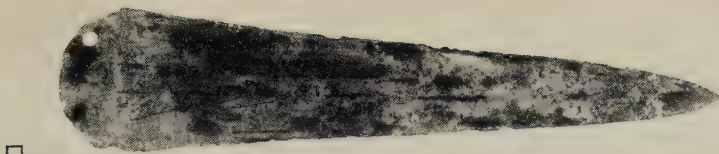
(c)



(d)



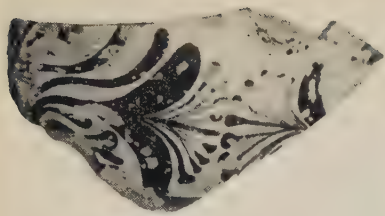
(e)



cm.

MINOIKA IN CYPRUS

(a) 2. (b) 3. (c) 4. (d) 5. (e) 6 (L), 8 (R).



(a)



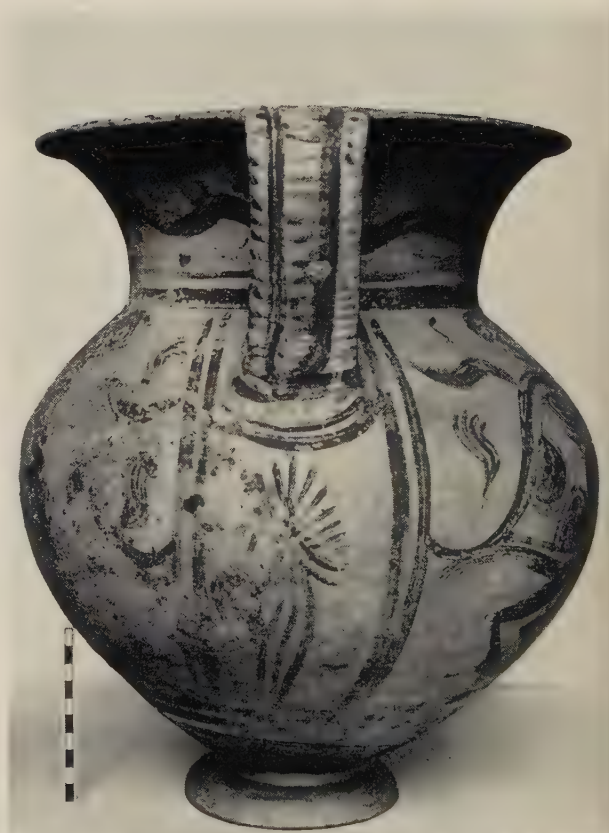
(b)



(c)



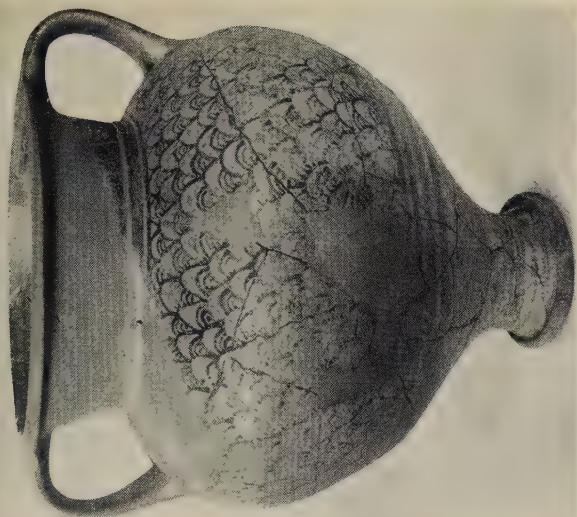
(d)



(e)

MINOIKA IN CYPRUS

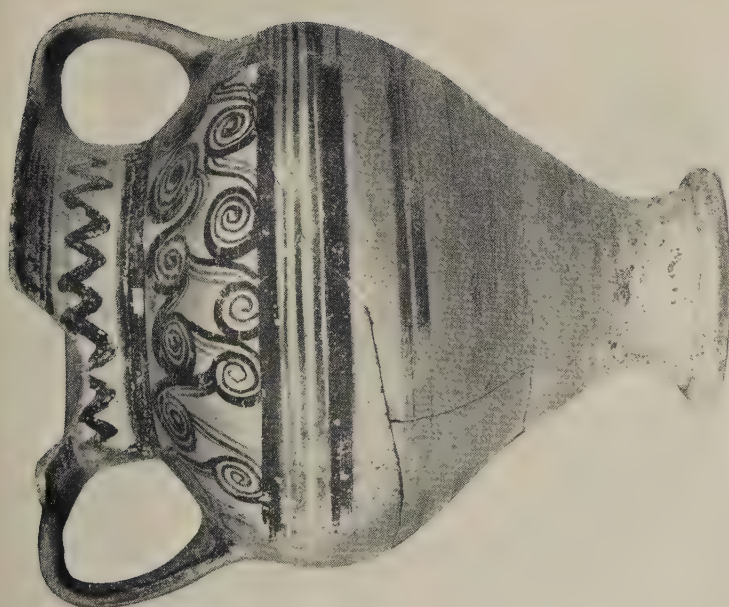
(a) 9. (b) 10. (c) 11. (d, e) 12.



(b)



(c)



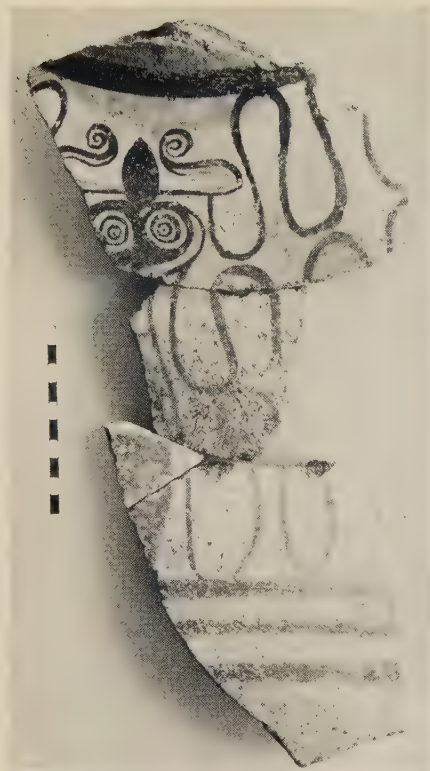
(a)



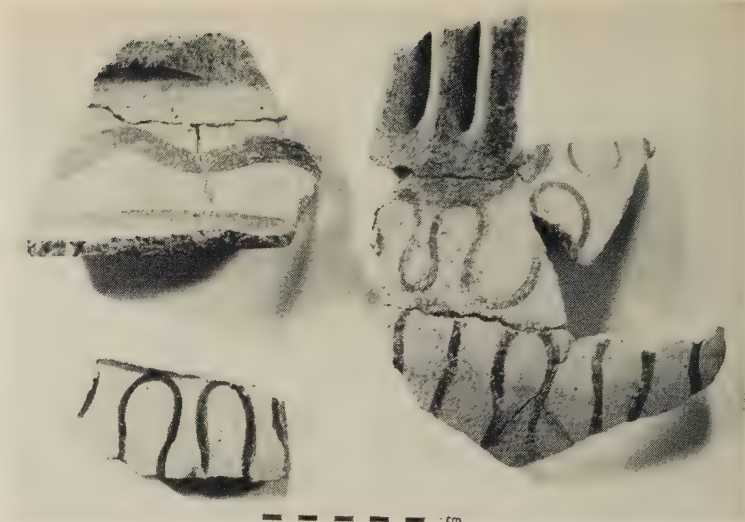
(d)

MINOIKA IN CYPRUS

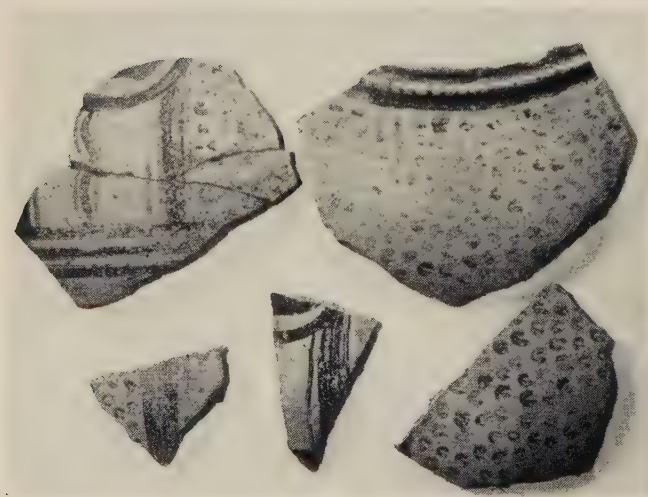
(a) 13. (b) 14. (c) 15. (d) 21.



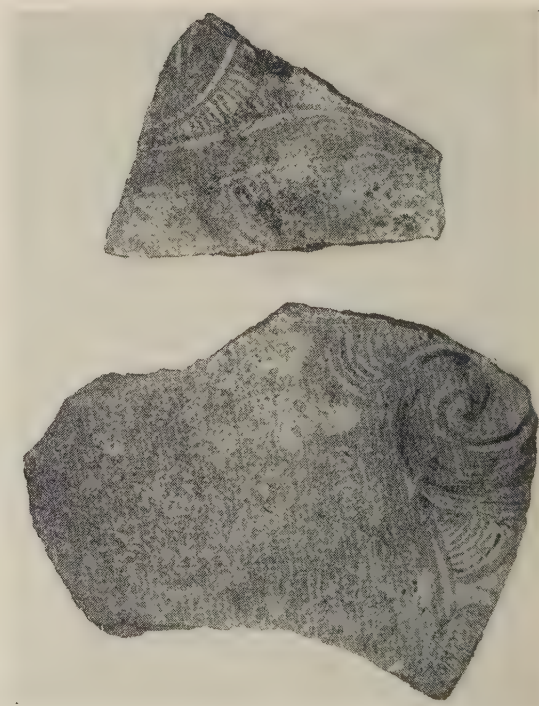
(a)



(b)



(c)



(d)

MINOIKA IN CYPRUS

(a, b) 18. (c) 19. (d) 22.



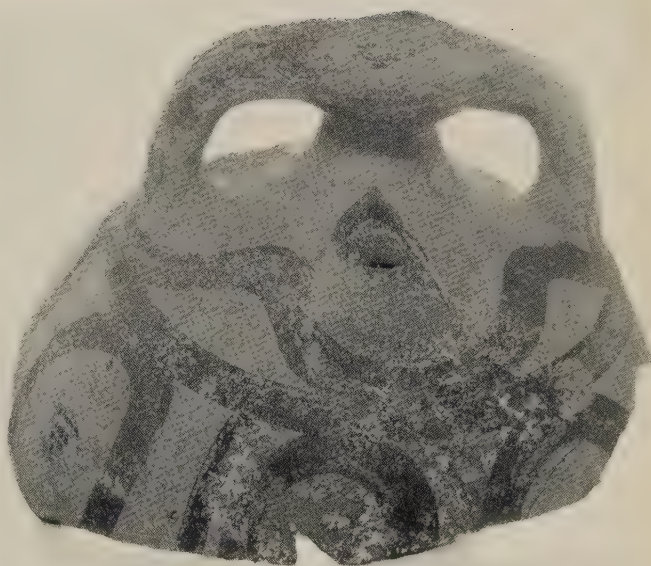
(a)



(b)



(c)



(d)

MINOIKA IN CYPRUS

(a, b) 24. (c) 25. (d) 27.



(a)



(b)

MINOIKA IN CYPRUS



I. 11



TOMB V



TOMB VIII

PROTOGEOMETRIC GRAVES AT AGIOS IOANNIS NEAR KNOSSOS



IV. 1

I. 1



VIII. 2

VIII. 1



A



B



VIII. 15

VIII. 8



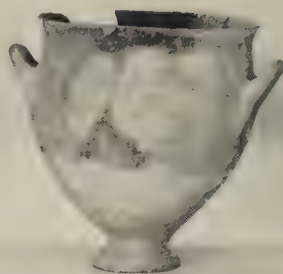
I. 3

I. 4

PROTOGEOMETRIC GRAVES AT AGIOS IOANNIS NEAR KNOSSOS



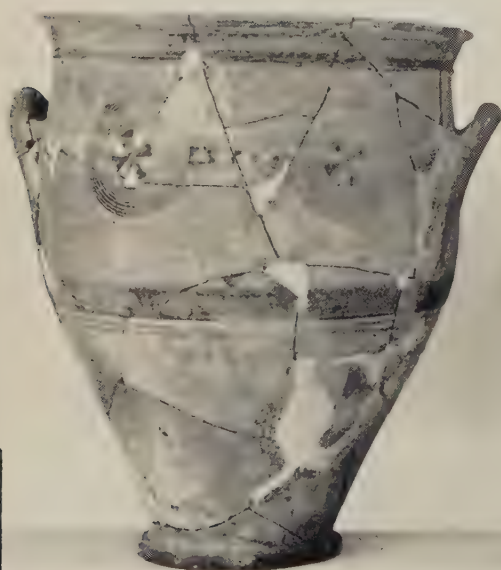
I. 9



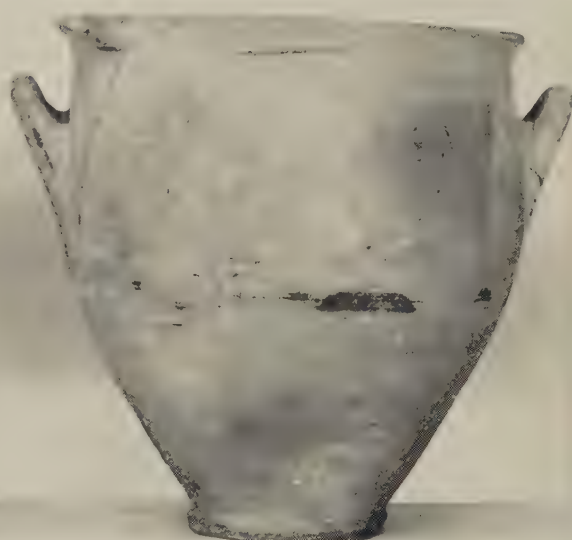
I. 13



V. 11



I. 8



III. 1



V. 3

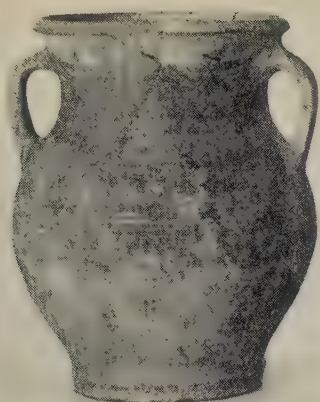


V. 2

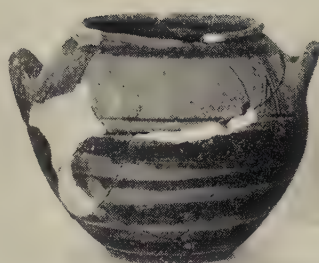


I. 17

PROTOGEOMETRIC GRAVES AT AGIOS IOANNIS NEAR KNOSSOS



I. 2



I. 56



V. 23



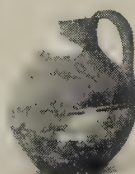
V. 8



I. 42



I. 43



V. 6



III. 4



V. 10



I. 40



I. 16



I. 14



VI. 3

PROTOGEOMETRIC GRAVES AT AGIOS IOANNIS NEAR KNOSSOS



VIII. 10

VIII. 11

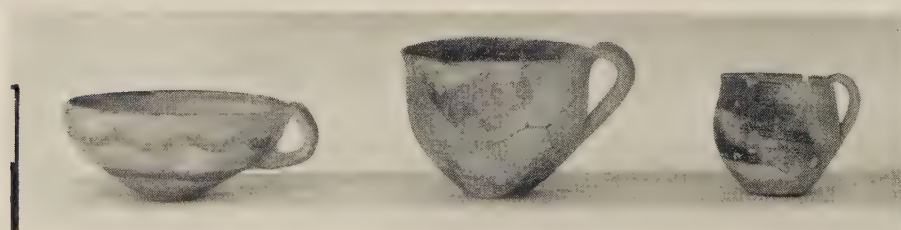
VIII. 12



VIII. 14

VIII. 13

VIII. 3



V. 16

I. 46

V. 17



I. 45

V. 19

I. 44

PROTOGEOMETRIC GRAVES AT AGIOS IOANNIS NEAR KNOSSOS



VIII. 9

VIII. 6

VIII. 7



IV. 6

IV. 5

V. 12

IV. 2



V. 1



VIII. 5

PROTOGEOMETRIC GRAVES AT AGIOS IOANNIS NEAR KNOSSOS



IV. 4

V. 4

V. 5



III. 3

III. 2

I. 58



III. 5

V. 13

V. 14

V. 15

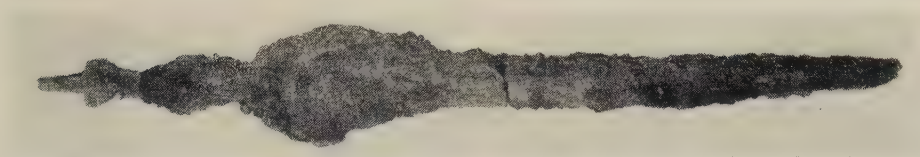
PROTOGEOMETRIC GRAVES AT AGIOS IOANNIS NEAR KNOSSOS



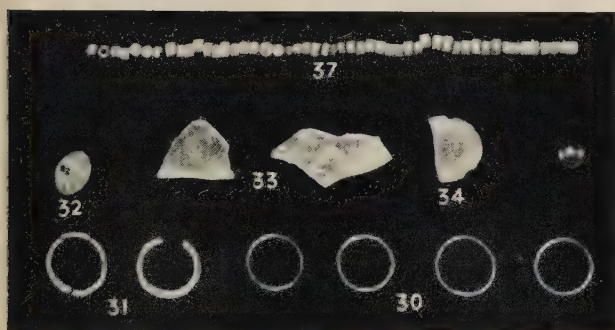
VIII. 18

VIII. 19

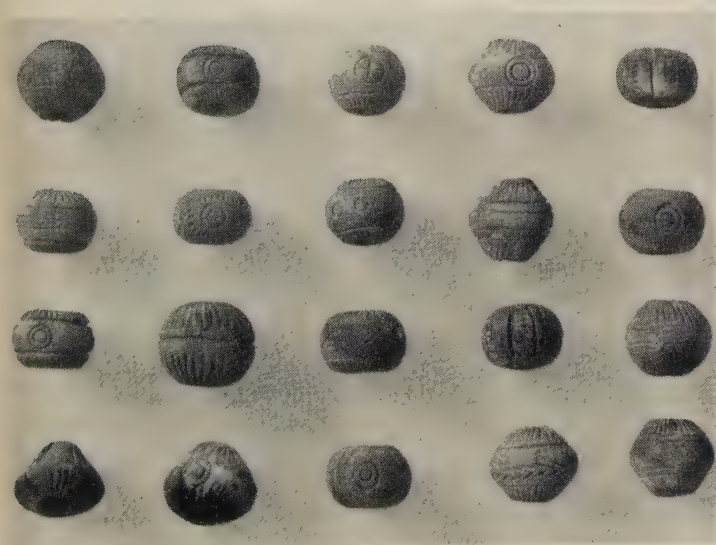
VIII. 17



VIII. 16



V. 30-34: 37



V. 35

PROTOGEOMETRIC GRAVES AT AGIOS IOANNIS NEAR KNOSSOS



(a)



(b)

FOUR WHITE LEKYTHOI IN THE NATIONAL MUSEUM OF ATHENS

(a) ATHENS 19272. (b) ATHENS 19273.



(a)



(b)

FOUR WHITE LEKYTHOI IN THE NATIONAL MUSEUM OF ATHENS

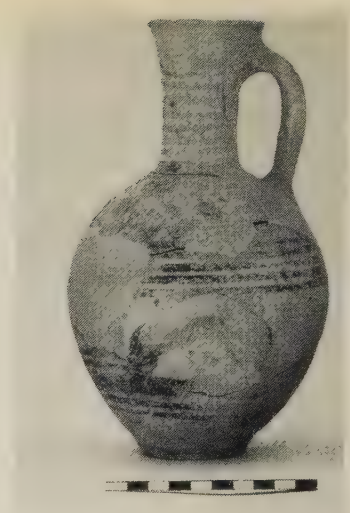
(a) ATHENS, FROM AREA OF ACADEMY. (b) ATHENS 16461.



1



2



3



4



5



6



9



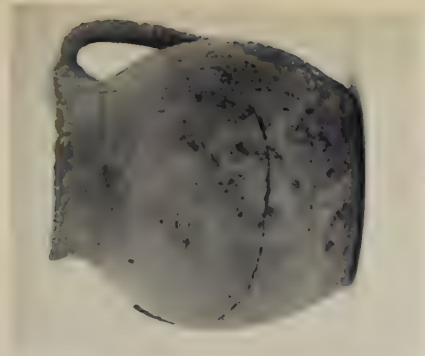
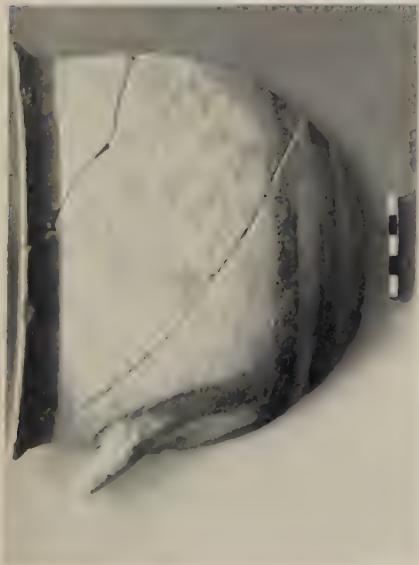
10



12

A GEOMETRIC WELL AT KNOSSOS

LOWER DEPOSIT. HYDRIAI AND OINOCHOAI.



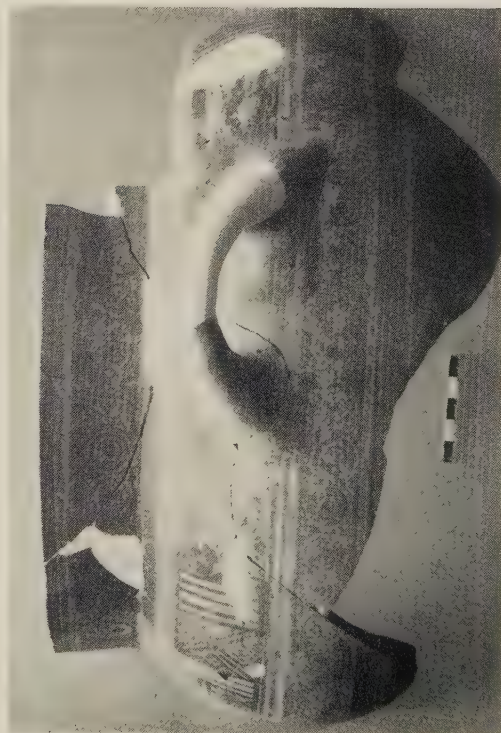
A GEOMETRIC WELL AT KNOSSOS
LOWER DEPOSIT. (a) 14. (b) 19. (c) 32. (d, e) VARIOUS.



39



40



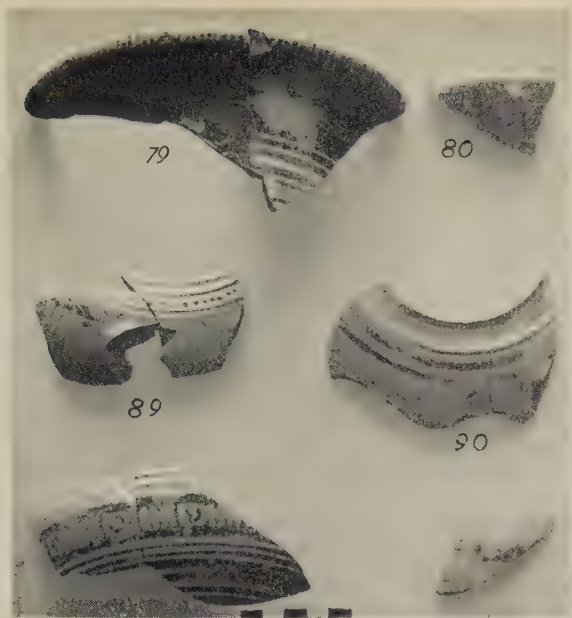
40



61

A GEOMETRIC WELL AT KNOSSOS

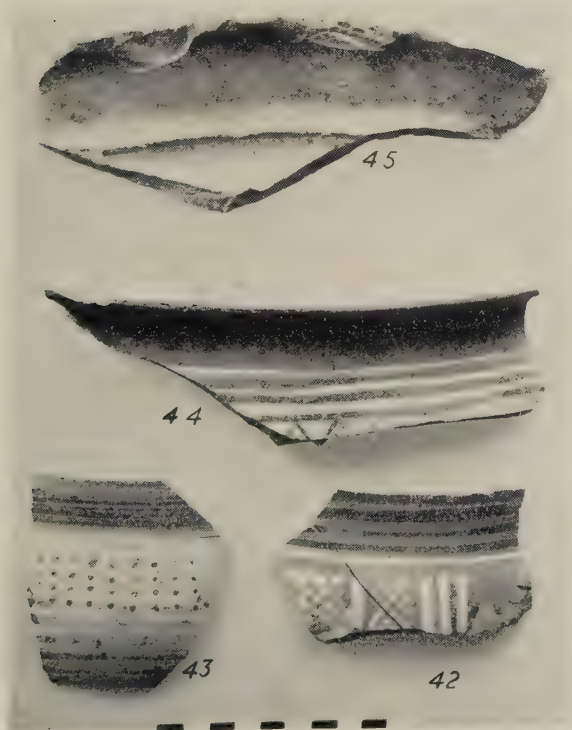
UPPER DEPOSIT. KRATERS AND CUPS.



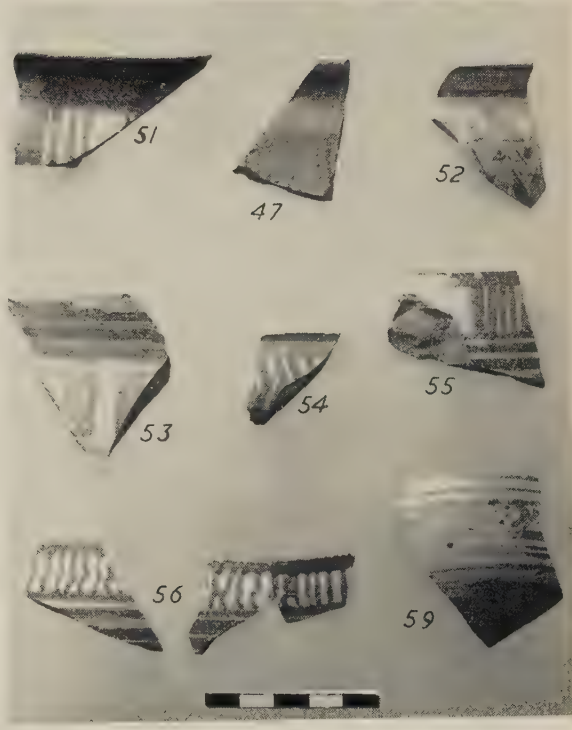
(a)



(c)



(b)



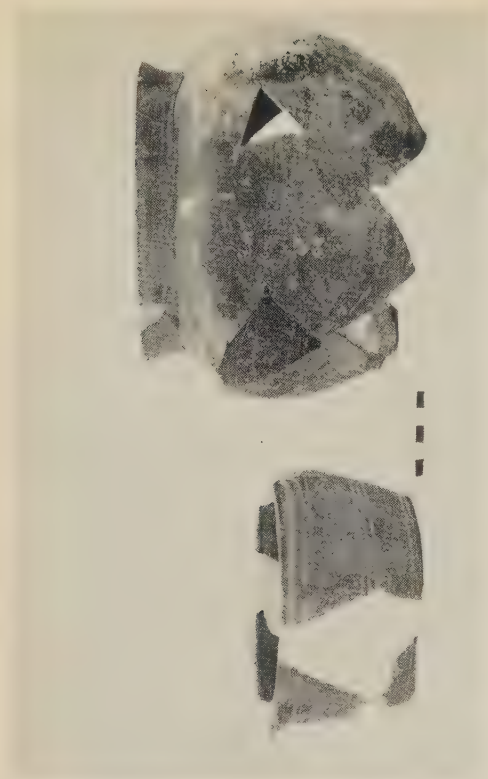
(d)

A GEOMETRIC WELL AT KNOSSOS

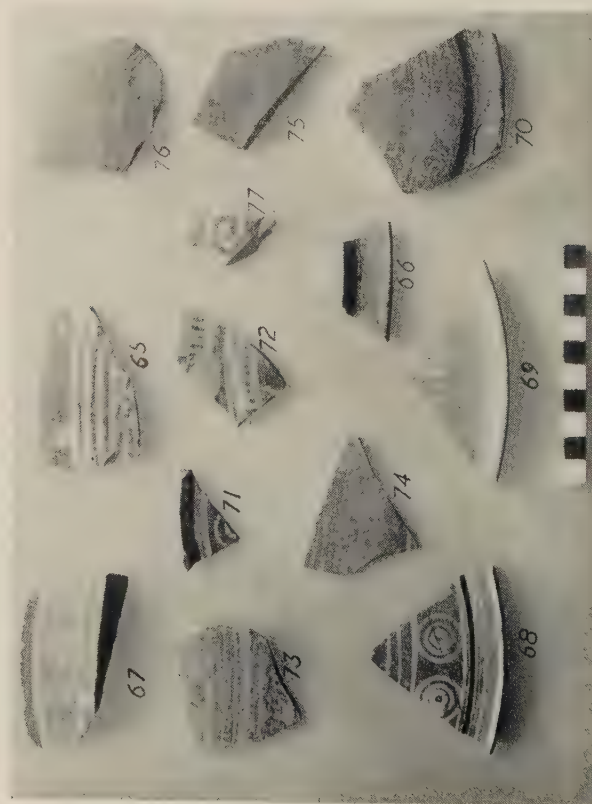
UPPER DEPOSIT (EXCEPT 20). (a) PYXIS, AMPHORA FRAGMENTS. (b) KRATER FRAGMENTS. (c, d) SKYPHOS, KOTYLE FRAGMENTS (20 FROM LOWER DEPOSIT).



(a)



(b)



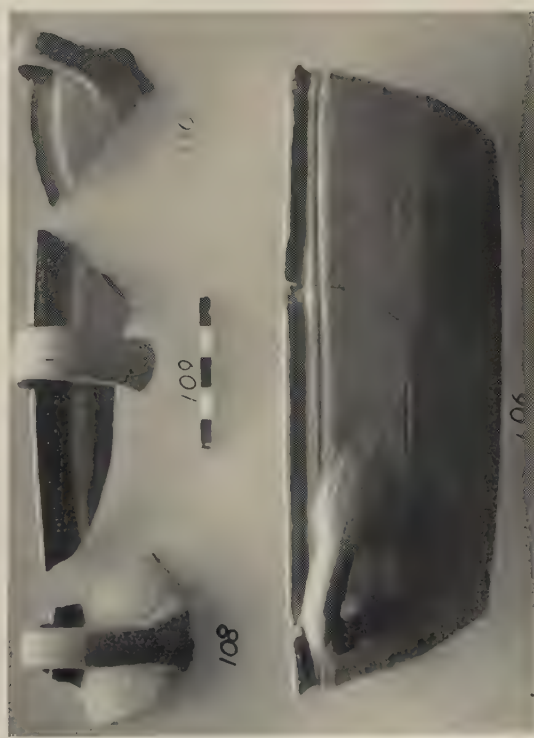
(c)



(d)

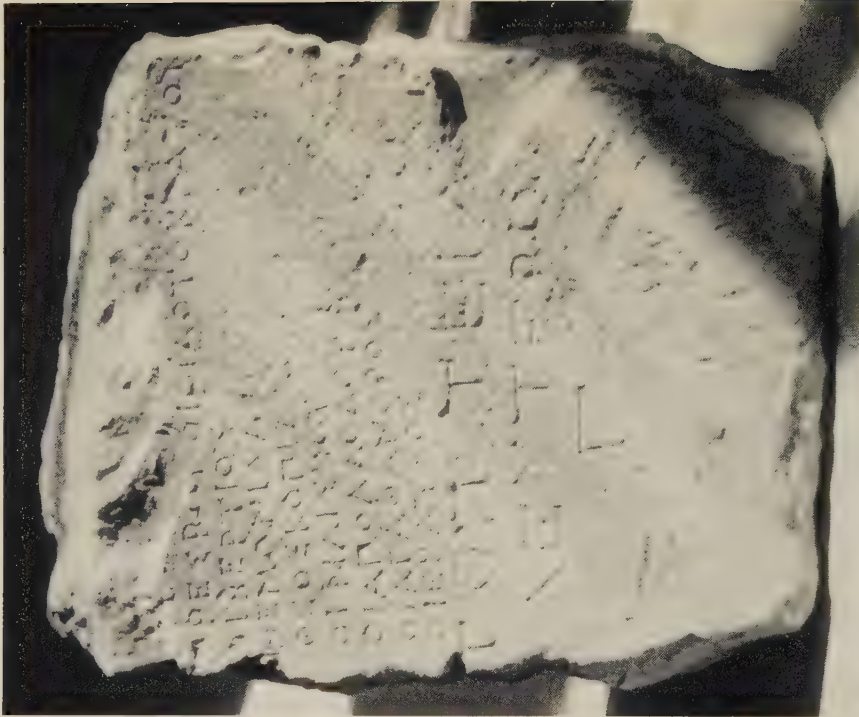
A GEOMETRIC WELL AT KNOSSOS

UPPER DEPOSIT. (a) L. TO R. 64, 46. (b) L. TO R. 46, 41. (c) LID FRAGMENTS. (d) AMPHORA FRAGMENTS.



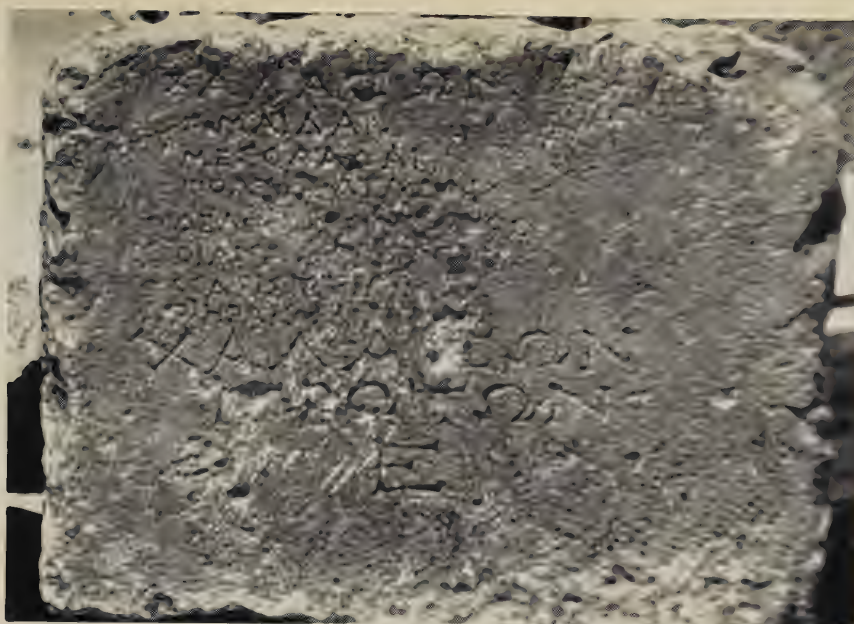
A GEOMETRIC WELL AT KNOSSOS

(a) d. VARIOUS.

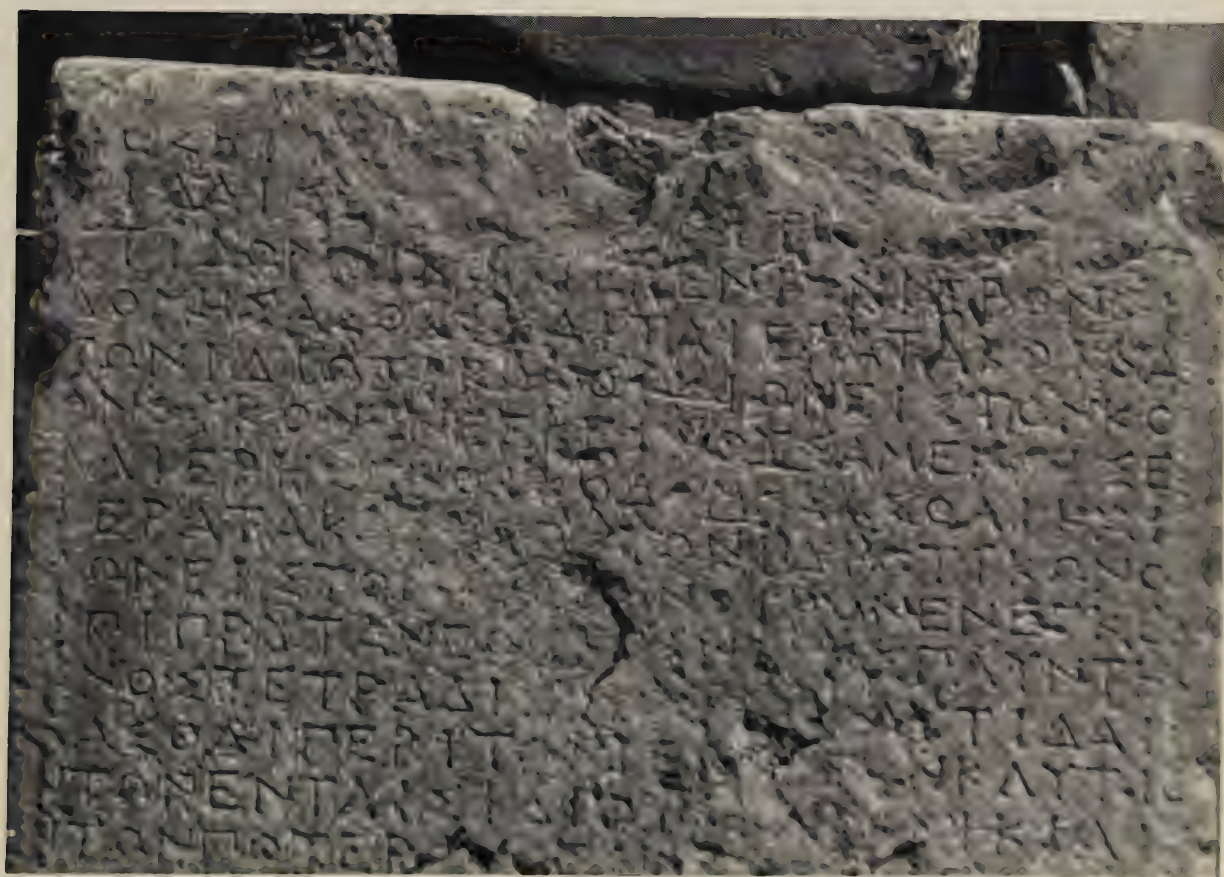


THE TRIBAL ORGANIZATION OF CHIOS

(a) 1. (b) 4.



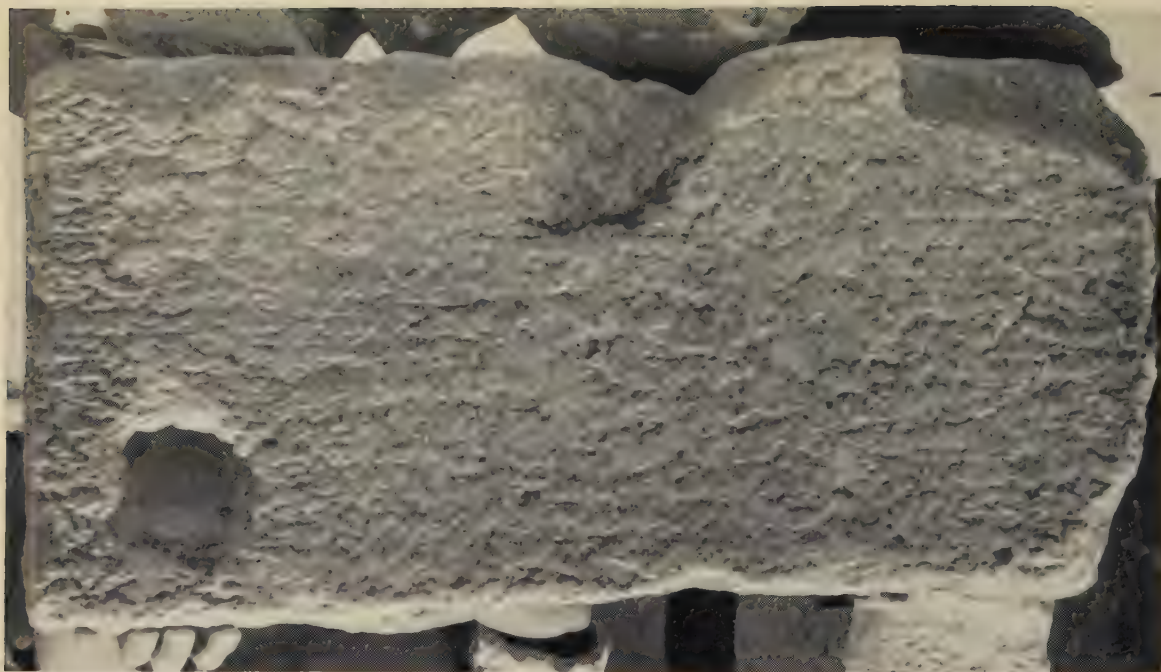
(a)



(b)

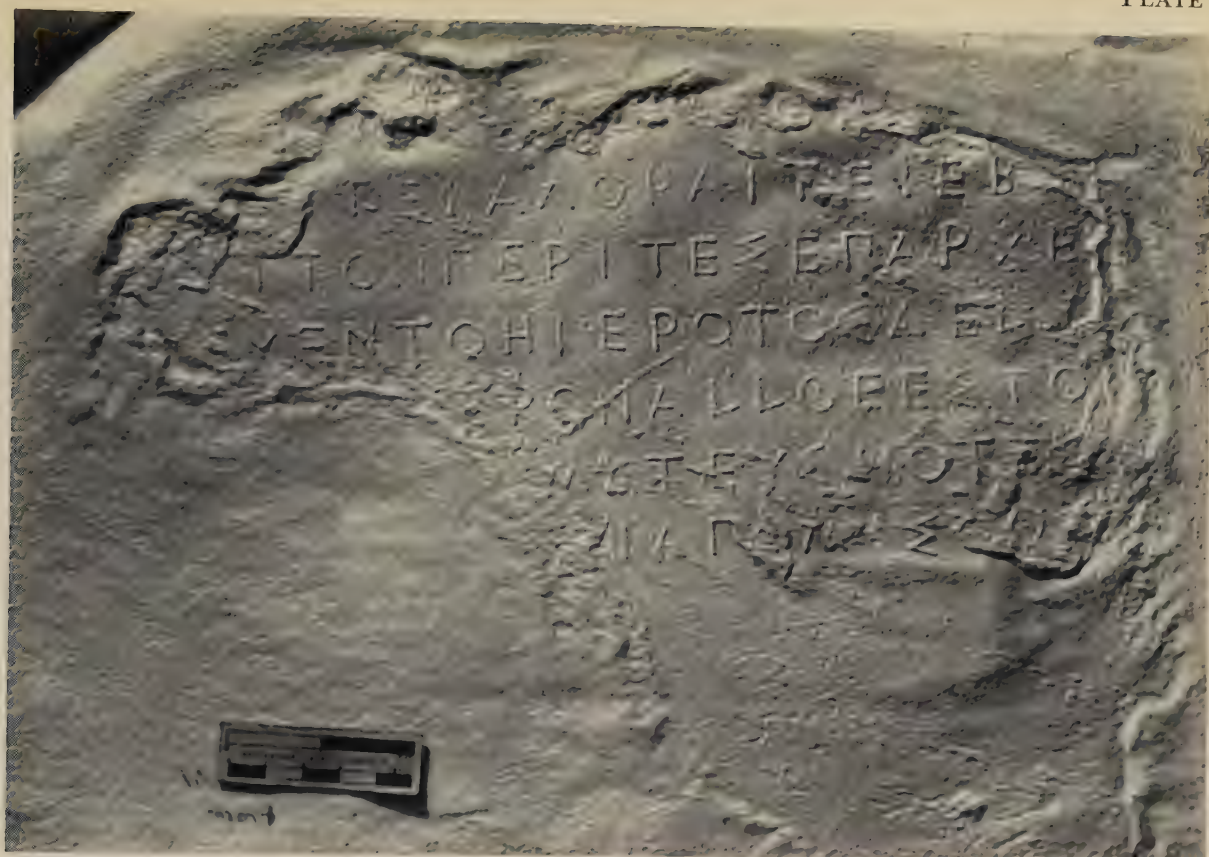
THE TRIBAL ORGANIZATION OF CHIOS

(a) 2. (b) PART OF SIG³ 987.



THE TRIBAL ORGANIZATION OF CHIOS

(a) 5. (b) *scdi* 5654, FRONT FACE.



(a) APOLLO DELIOS: PIRAEUS MUSEUM, FRAGMENT (SQUEEZE). (b) DELPHICA: THE SIBYL'S ROCK.



1



2



3



4

EUBOEAN FLORAL BF VASES

CHALCIS.



1



2



3



4

EUBOEAN FLORAL BF VASES

CHALCIS (1, 3, 4), ATHENS (2).



1



2



3



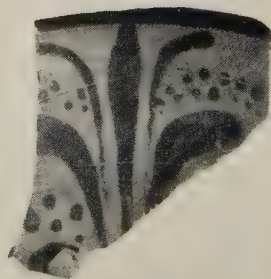
4



5



6



7

EUBOEAN FLORAL BF VASES

CHALCIS (1, 2, 4), THEBES (3), ROME, FERORELLI (5, 6), ATHENS, BSA (7).



1

2

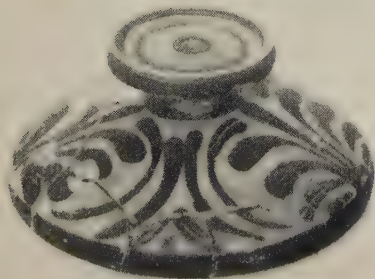
3



4



6



5

EUBOEAN FLORAL BF VASES

CHALCIS.



1



2



3



4



5



6



7



9



8



1



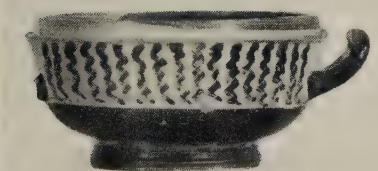
2



3



4



5



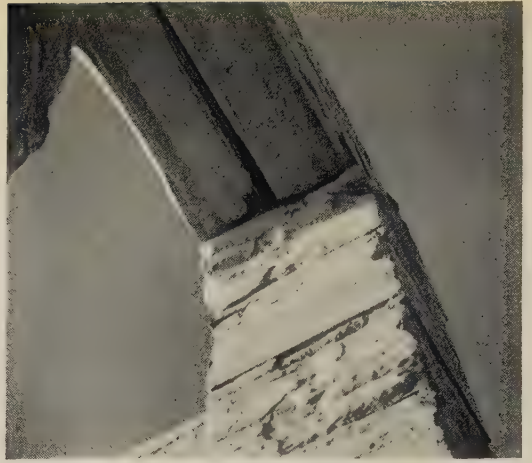
6

EUBOEAN FLORAL BF VASES

ATHENS (1, 3, 6), READING (2, 4), MARBURG (5).



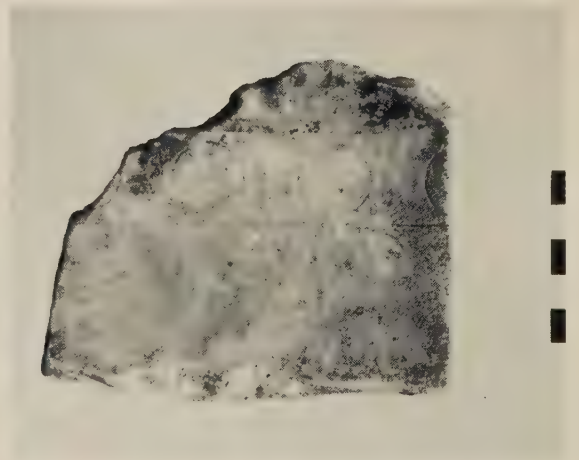
(a)



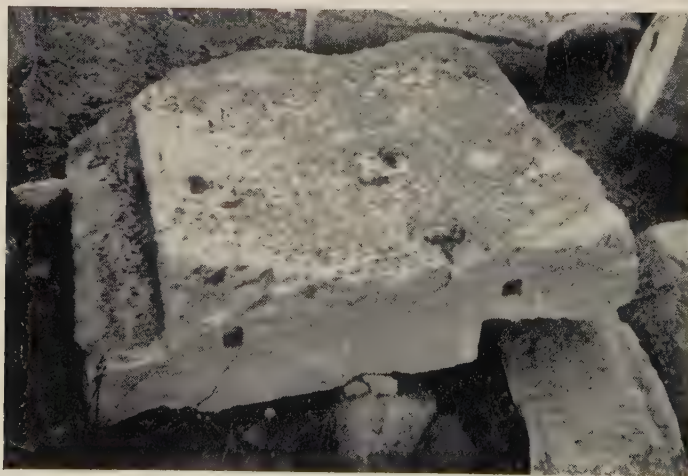
(b)



(c)



(d)



(e)

THE TEMPLE OF POSEIDON AT SUNIUM

- (a) REAR FACE OF GEISON-BLOCK WITH PAINTED FRET. (b) N.E.-ANTA-CAPITAL, S. FACE. (c) LATERAL GEISON-BLOCK, FROM REAR.
 (d) FRAGMENT OF CEILING-COFFER, (e) GEISON-BLOCK FROM FLOOR OF PEDIMENT.



(a)



(b)



(c)



(d)

THE TEMPLE OF POSEIDON AT SUNIUM

- (a) CEILING-BEAM OF SIDE PERISTYLE; OUTER END. (b) CEILING-BEAM OF SIDE PERISTYLE; CENTRE. (c) SOFFIT OF ARCHITRAVE-BLOCK, SHOWING 'SCAMILLUS'. (d) LATERAL GEISON-BLOCK, UPPER SURFACE.

PRINTED IN GREAT BRITAIN
AT THE UNIVERSITY PRESS, OXFORD
BY VIVIAN RIDLER
PRINTER TO THE UNIVERSITY

